ARGUS Developer 6.5 Product User Manual

ARGUS Developer 6.5

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ARGUS® SOFTWARE
An Altus Group company

Product User Manual for ARGUS Developer 6.5
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Getting Started

Welcome

ARGUS Developer is an established real estate pro forma software program in use by thousands of owners, commercial developers, home builders, land developers, agents, and financial institutions throughout the world. Combining pro forma capability with sensitivity analysis and a powerful discounted cash flow provides you with a flexible, consistent, and stable platform. Executive level views of single and multi-phased projects allow changes to be assessed instantly. A finance component provides for detailed debt and equity financing and advanced waterfall profits for precise deal structuring. By reducing risk and freeing resources within your organization, ARGUS Developer helps you to focus on your core business.

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Activate ARGUS Developer

When you install Developer, open the application and activate the product using the product key given to you by the ARGUS team.

For full instructions on activating ARGUS Developer, please refer to the ARGUS Developer Installation Guide.

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What's New

Area

Excel Integrated Analytics

You can export ARGUS Developer data into a fully integrated Excel workbook, which provides additional reports, dashboards, and the building blocks to create custom reports. In addition, one-click update, linked custom reports stay dynamic to changes made in ARGUS Developer.

Examples of reports, dashboards and data tables:

- Dashboard and Reports
- Phase Dashboard
- Finance Dashboard
- Executive and Project Overview Dashboards
- Cash Flow Report

Data Tables

- Phases Data Table
- Financing Structures Data Table
- Equity & Debt Sources Data Table
- Mortgage Data Table
- Sales Units and Capitalized Areas Data Tables

Enhanced Structured Finance

Added the ability to model loan contributions on the following basis:

- Interest only loans reverting to capital and interest repayments on a specified date
- Shortfalls in mortgage payments picked up by any finance source

Enhanced Structured Finance

Added the ability to model repayments of capital on the following basis:

- Delay the repayment of capital and loans using the earliest repayment date per finance source
- Repay capital and loans in full on a specific date per finance structure

Enhanced Structured Finance

Added the ability to model mortgages on the following basis:

- Create multiple mortgages
- Specify the tenants/properties used to finance the mortgage repayments
- Select the basis on which each mortgage can be calculated independently of any other
- Calculate the mortgage based on a target debt service coverage ratio

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- Calculate the annual income from the sum of net operating income over first twelve months of the mortgage

Enhanced Structured Finance

Added the ability to model profit distributions on the following basis:

- Distribute profit to a general partner using the catch-up method
- Distribute profit from a general partner to investors using the clawback when their preferred return or other hurdle rate has not been met

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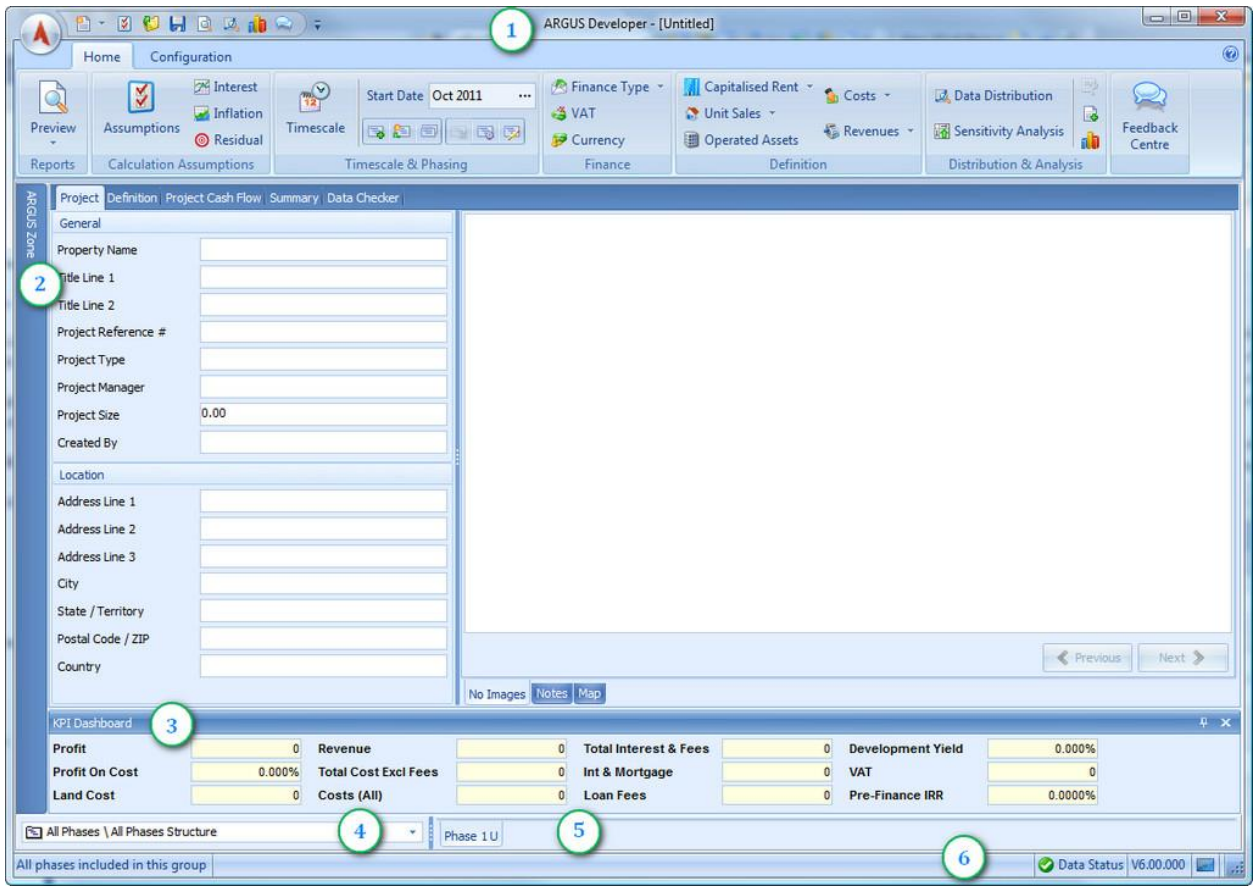
Application Workspace

Application Workspace

When you open ARGUS Developer, you will notice that there is much that is familiar. You will also notice a new look to the application.

ARGUS Developer now comes with a ribbon at the top of the window. The ribbon contains tabs that you click to get to the commands that you will use to create and edit development projects. The ribbon makes programs simpler to use and its commands are easy to find.



The application has six basic components:

1. **Title bar:** When a project is loaded, its name appears in the title bar. An empty project will show the name [Untitled] until you save it with a new name.
2. **KPI Dashboard:** The dashboard shows Key Performance Indicators, all updated in real time.
3. **Phase Group Selector:** The phase grouping feature allows you to group phases together for valuation and analysis. It is also used for phase level financing.

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4. **Phase Tab Bar:** Use the phase tabs to navigate between different phases, including one tab called Merged Phases which combines the phase of a project together.

5. **Status Bar:** This are is where information about the current action is displayed.

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The Ribbon

For users familiar with Developer, there is a lot of change to the workspace. All the commands and tools you need to put together development projects are now exposed and readily available on the ribbon. There is a single command center that brings all the essentials together in a visual format. When you know how to use the ribbon in Developer you can use the same principles in other Office-type programs.

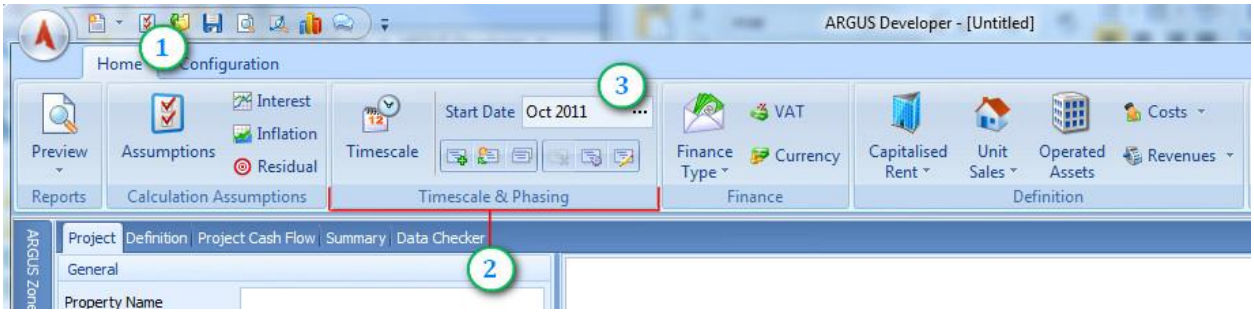

Figure 1: Three basic components of the ribbon

A ribbon has three basic components:

Tabs: Displayed along the of the ribbon, each tab represents the core tasks you do in developer.

Groups: Groups are sets of related commands displayed in the tabs. They provide all of the commands necessary to perform a single type of task. They remain on display and are readily available, no matter what you are working on in Developer.

Commands: Arranged within the groups, commands can be buttons, menus, or boxes where you enter information.

The first tab in ARGUS Developer is the Home tab. The main task in Developer is creating and editing development projects, so the commands on the Home tab are the ones that will be used most commonly: setting calculations assumptions (in the Assumptions group), creating a time scale (in the Time scale & Phasing group), entering finance structures (in the Finance group), entering revenues and costs (in the Definition group), and editing or analyzing data (in the Distribution & Analysis group).

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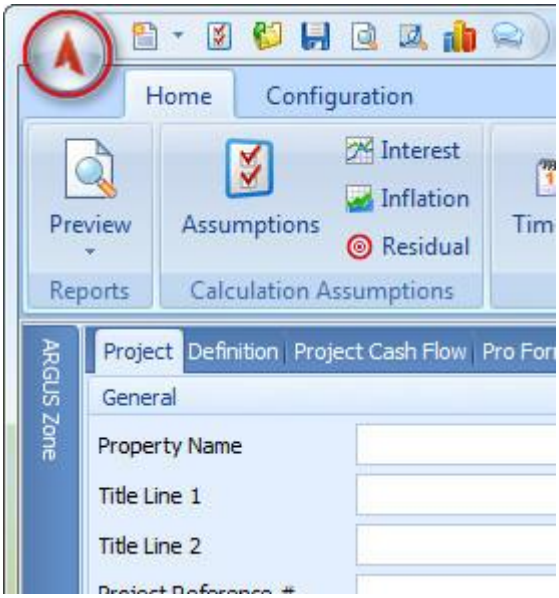
The ARGUS Button



The **ARGUS** Button appears in the upper-left corner of the window in ARGUS Developer. All the commands that appeared in the File menu, to open, save, and print documents appear here.

The button contains more commands than the File menu did. For example, there is a command that will generate a report, put it into a PDF format and email it to another person, all in one easy step.

The **ARGUS** Button also leads to the program settings that allow each user to set their preferences for how they want the program to work. Click **Preferences** at the bottom of the menu, and the click any of the tabs to access the settings.

The **Configuration** command is also found at the bottom of the menu. System Administrators can use this to set options that affect all users of the program.

In previous versions of ARGUS Developer, options could be set using the Options window, which was opened from the Tools menu. All those options can now be found when you click the **ARGUS** button, where they are more visible.

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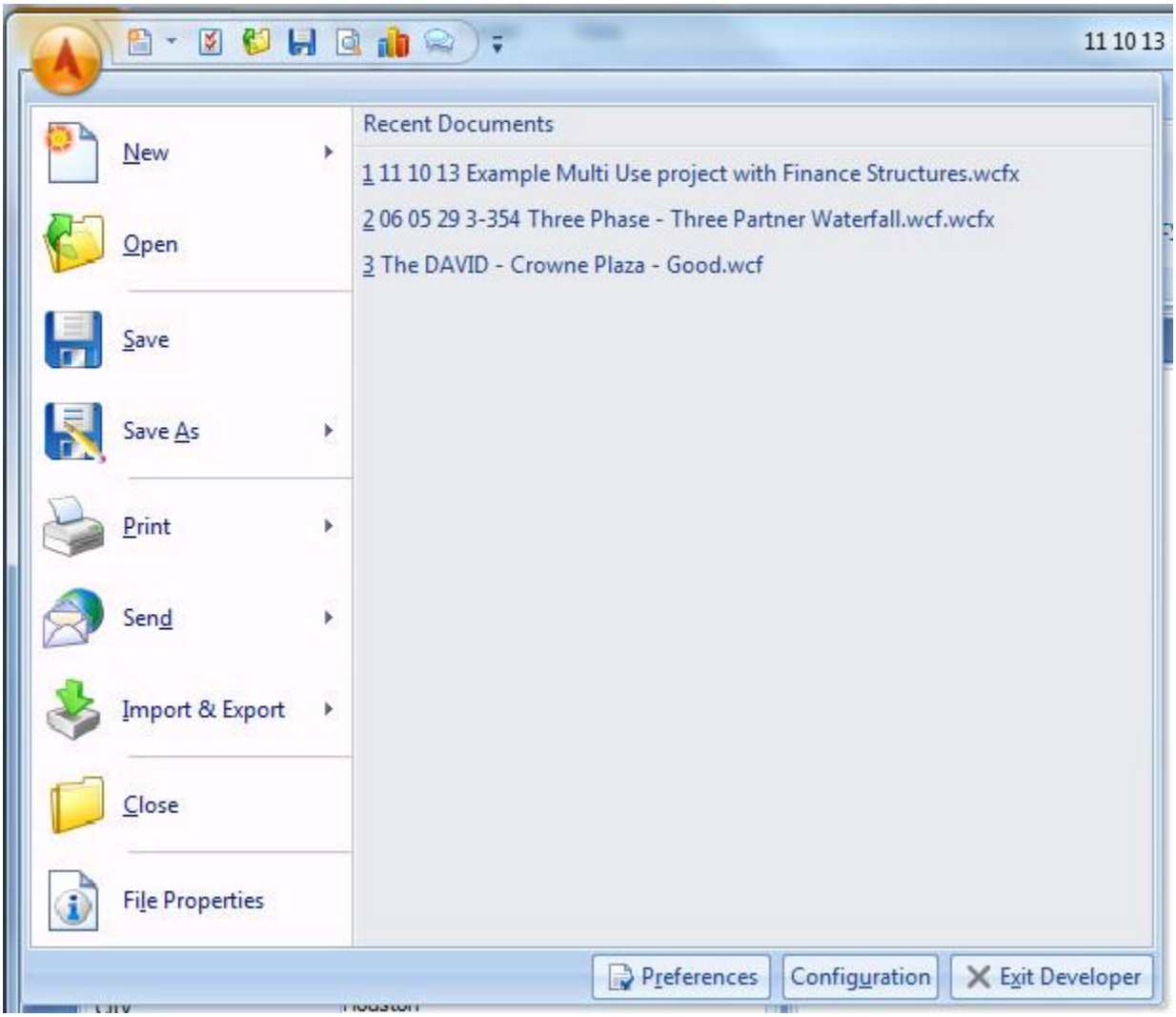
Application Menu

Application Menu

Argus Developer works with a single project file at a time.

All project management commands are placed on the **ARGUS** Button, where they are easy to find and use, no matter where in the program you are currently working.



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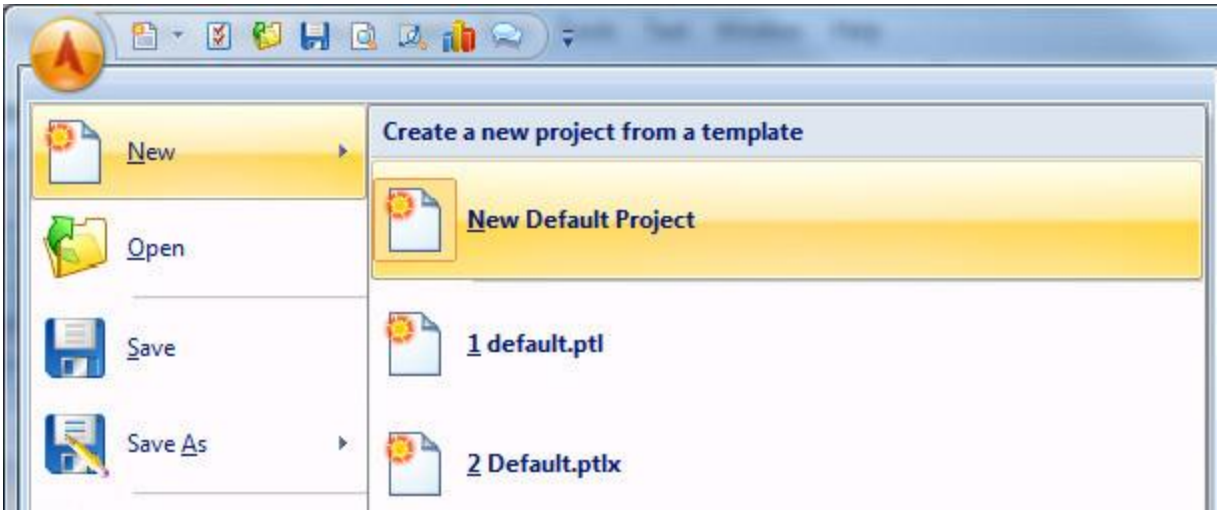
Starting a New Project

When you start ARGUS Developer, a new blank project will be created automatically.

To start a new project at any other time, select the ARGUS Button > New command then click the name of the template you want to use.



Any changes you have made to the open project can be saved automatically before the new project is started.

When the new project is opened, it will contain all the default settings for calculations options.

1. Click on the **ARGUS Button >> New** command
2. Select **Default Project Template** - If you have more than one project template installed, select the one you want from the list
3. The new project will be created with your standard calculation options already set.

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Opening a Project

To open an existing project, select the **ARGUS Button > Open** command then browse to the location of the file you want to open. When the file browser opens, it will be defaulted to look in your designated data folder.

To open one of the projects you worked on most recently, select the name of the project file from the Recent documents list on the right side of the ARGUS button popup. If you hover the mouse over the file name, you will see the full drive and path location to help you more easily identify the file you want.

To change the number of recent documents, review the General Preferences topic on the Recent Projects List.

File Information Windows

When you open a project, you will sometimes see an information window appear to tell you about something in the file that needs your attention.

Some of the windows you might see are:

Unknown Land Transfer Tax Schemes

If you open a project from another region that contains a Land Transfer Tax Scheme that is not recognized by your installation, an information window is shown. You are given the opportunity to add the scheme to your installation, or to use the scheme only with this project, without updating your installation.

Invalid Licence Key

If you open a project that contains data for a function for which you do not have a licence, a warning window will be shown. Some reasons for this are:

- A project contains structured finance data but you do not have a licence to use the structured finance functions. You will be allowed to load the project, but the Basic Finance (Interest Sets) finance type will be used. The structured finance data will remain in the project and will be saved to the project file. This ensures that, when the project is opened in an installation where there is a structured finance licence, the original finance type can be easily restored.
- A project contains advanced waterfall finance data but you do not have a licence to use the structured finance functions. You will be allowed to load the project, but the Basic Finance (Interest Sets) finance type will be used. The advanced waterfall finance data will remain in the project and will be saved to the project file. This ensures that, when the project is opened in an installation where there is a structured finance licence, the original finance type can be easily restored.
- A project contains advanced waterfall profit distribution finance data but you do not have a licence to use the advanced waterfall finance functions but you do have a licence for structured finance. You will be allowed to load and save the

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project, but the profit distribution type for each participating source will be set to Residual Percentage, overwriting the original settings.

- The advanced waterfall data can be reactivated only by opening the project in an installation where there is an advanced waterfall licence. The profit distributions must then be re-entered.

    - A project contains operated asset data but there you do not have a licence to use operated asset features. You will be allowed to load and save the project, but the Use Type in each operated asset area record will be set to Undefined. The operated asset data will remain in the project file when it is saved. This ensures that, when the project is opened in an installation where there is an operated asset licence, the data can be easily restored.

Each of the area records whose Use Type was changed to Undefined will be calculated on a normal rental income basis. Because the operated asset data has been temporarily removed from the area records, the rent, rental income and capital value will be zero for these items.

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Saving a Project

To save the open project, select the **ARGUS Button > Save** command. If this is the first time the project is being saved, you must give it a name. The Windows Save As window will be shown to allow you to choose a location and a name.

WCFX Format

When you are saving a project, it is recommended that you use the default file format – WCFX. This new format, introduced in Version 5, has some major benefits over the previous WCF format. It can store the results of calculations, together with cash flows from the project and structured finance areas. The file can be automatically compressed so that its file size is a fraction of the uncompressed size.

Save As – Developer Project

When you want to save the project in the default format but give it a new name, or save into a different location, choose the **Save As > Developer Project** command.

Save As – Developer Project without KPIs

When you want to save the project in the default format, without including any of the calculated KPIs and cash flows, choose the **Save As > Developer Project** without KPIs command.

You will still be able to save to a different file name and location, and the file will be compressed.

Save As – Version 2.06 Project

For backwards compatibility with Version 2.06, you can quickly save the file in the older file format. This command will produce a WCF format file that can be opened in 2.06, or later versions.

When the project is saved in this format, any data from newer parts of the program will be converted to fixed amount cash flows. A detailed report will be produced that shows you what conversions were necessary to achieve compatibility with the older version.

Save As > reXML Data File

The reXML data file format is used by other ARGUS applications, notably Valuation-DCF and Asset Management. The reXML format does not hold all the data that Developer contains – there is no equivalent function in many cases between the applications.

The reXML format supported by Developer is 1.4.2.

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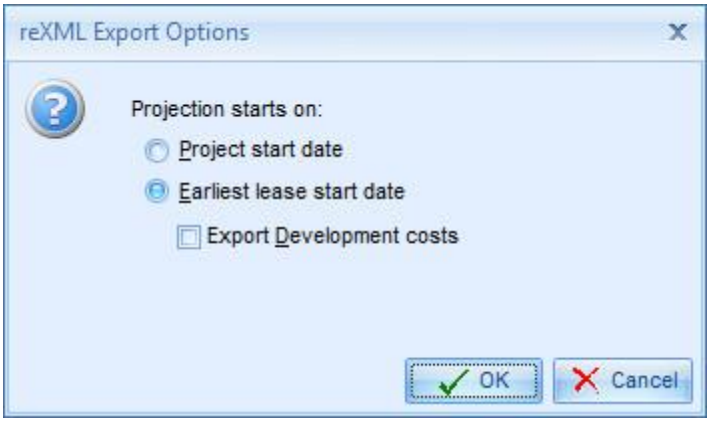

Projection Start Date
You can choose the date from which the cash flow data is exported into the rexML file:

- Project Start Date – exports data from the first period of the project through to the final period.
- Earliest Lease Start Date – exports data from the earliest lease start date through to the final period.

If you want to base the exported data using the **Earliest lease start date** option, there is an additional option to consider:

- Export development costs – development costs up to but not including, the earliest lease start date, are exported as a single consolidated amount to a line headed “Costs Prior to Leasing”. All development costs from the earliest lease start date onwards are exported as individual line items with monthly data. Area information is included in the export.
- Do not export development costs – no development costs are exported to the data file. Area information is included in the export.

Export Data Contents
Included in the export data are the following:

- Project Name
- Property Name (this field is automatically defaulted to be the name of the Developer project file. This ensures that Valuation-DCF can search for a file to update when using the Update model command)
- Project Start and End Dates
- Development Costs as individual line items with the appropriate categories: “Land/Acquisition Costs”, “Hard/Construction Costs”, or “Soft/Development Costs”
- Cap Area (lease) data for:
    - Name
    - Type

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- Size
- Start Date
- Term / Expiry
- Detail Base rent prior to void allowance (if any) over the term of the lease
- Market Leasing Assumption categorization which is based on unique Market Rent and Length of term within the Developer file

Excluded from the export data are the following:

- Finance Data
  - Unit Sales Area Information
- Cap Area data for:
  - TI Costs
  - Leasing Commissions
  - Void Costs
  - Rent Additions and Costs
- Operated Asset operating revenue and expenses

Save As > Other Formats

The **Other Formats** command is used to open the Windows Save As window so that you may choose from any of the available file formats using the drop-down selector.

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Printing a Project

To preview or print a report, setup a printer or create report groups, choose the **ARGUS Button > Print** command.

Print Preview

The **Print Preview** command will create and preview the Report Group you used most recently. You can send the report to the printer, or save it in other formats for reading at another time.

See Also

Printing Reports

Quick Print

The **Quick Print** command will create and print the Report Group you used most recently. It will be sent directly to the printer using the current printer settings.

Printer Setup

Use the **Printer Setup** command to choose settings like the name of the printer, number of copies, or other options, before printing.

Report Group Setup

Use this command to create report groups that contain the reports you use most often.

See Also

Printing Reports

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Closing a Project

When you want to close the current project but don't want to exit the program, choose the **ARGUS Button > Close** command.

If you have any unsaved changes, you will be prompted to save the project.

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File Properties

To view information about the project file format, and to see a record of when the file was saved, choose the **ARGUS Button > File Properties** command.

To view information about when the file was saved, and by whom, click the Tracking tab.

Tracking Log

The tracking log is a useful feature that automatically logs file save activity. The information available is as follows:

Created By

This is name of the person entered into the **Created By** field on the Project tab.

Machine / User Name

The name used to identify your computer name and user name.

Company

The company name is taken from the company name issued through your license key.

Date Saved

The date and time of the last time the file was saved.

Version

The program version from which the file was saved.

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Working with Templates

You can avoid the repetitive work of creating new projects if you base them on templates designed for the types of project you create most often. A template is an outline for the type of development, its costs, fees, yields, and calculation options. ARGUS Developer is installed with one default template. You can modify and save the template so that it is always available with your own particular settings each time you start a project. By defining templates, you can ensure that all users start with your company default assumptions and fees. You might like to add non-standard fees and costs that are not pre-defined on the Definitions screen, for example Income from Advertisement Hoardings or Building Regulations fees. Project templates are stored in a location that all users in the system have access to. The default location for templates is the Regions\ Region\Templates folder. The location of these templates may be changed by choosing the ARGUS Button > Configuration > Data File Locations.

To modify an existing template

1. Open the template by selecting the **ARGUS Button > New** command then clicking the name of the template.
2. Change any of the calculation options, fees, areas, yields etc.
3. Save the template using the same file name, using the **ARGUS Button > Save As > Other Formats** command.
4. Browse to the Regions\Your Region\Templates folder.
5. Select the file type *Developer Template (*.ptlx)* from the **Save as type** drop-down field, then click the **Save** button.

To base a new template on an existing template

1. Open the template by selecting the **ARGUS Button > New** command then clicking the name of the template.
2. Change any of the calculation options, fees, areas, yields etc.
3. Save the project as a new template with a different file name, using the **ARGUS Button > Save As > Other Formats** command.
4. Browse to the Regions\Your Region\Templates folder.
5. Select the file type *Developer Template (*.ptlx)* in the drop-down list in the **Save as type** field then click the **Save** button.

To base a new template on an existing project

1. Open a project by selecting the **ARGUS Button > Open** command or by making a selection from the drop-down list in the **ARGUS Button > Recent documents** field.
2. Change any of the calculation options, fees, areas, yields etc.

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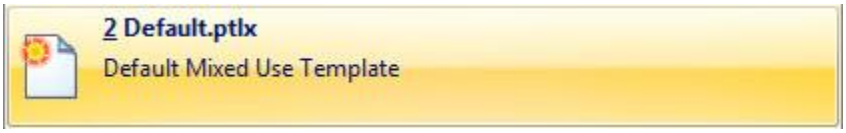
3. Save the project as a new template with a different file name, using the **ARGUS Button > Save As > Other Formats** command.

4. Browse to the Regions\Your Region\Templates folder.

5. Select the file type *Developer Template (*.ptlx)* in the drop-down list in the **Save as type** field then click the **Save** button.

To add a description to a template



1. Type the description of the template into the **Title Line 1** field in the Project > General group.

2. The description will appear underneath the template name.

Adding Fees to the Template

If you want to set up your template to include standard fees that are related to the area records for Capitalized Rent or Unit Sales, you must create some blank area records. By doing this, the program will have available some cash flow lines upon which it can set up the fee relations. Examples of the kinds of fee you might want to set up in this way are Contingencies or Professional fees, both of which rely on Construction cost cash flow lines. Once you start a project using this template, the fee relations will be automatically updated when you add more construction costs to the Capitalized Rent and Unit Sales areas.

To create fees based on area records

1. Open the area schedules for which you want to base fees upon – use the **Capitalized Rent** or **Unit Sales** commands in the Definition group on the Home tab.

2. Select the **Options > Save Zero Value Items** option.

3. Add new records using the **Add Area** command.

4. Click the **OK** button.

5. Open the data editor for the fee that you want to create by clicking the ellipsis button in the data field.

6. Set up the fee by selecting the fee type in the drop-down list in the **Type** field then opening the Selection window to choose the items to which you want to relate.

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Calculation Assumptions

Starting Work

When you start working with Developer for the first time, there are some procedures that you should become familiar with – you will use them for most new projects. Run through the following check list to quickly get started on your new project.

New Project Select list

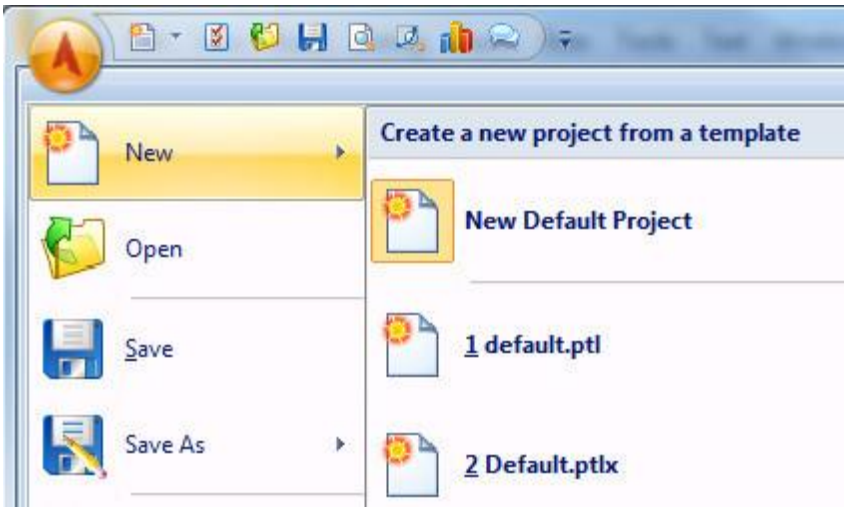
- Start a new project
- Set the project start date
- Select and make changes to calculation assumptions
- Enter the project time scale and phasing
- Choose the finance mode – either structured or 100% financed
- Enter project, property and location details
- Enter project revenues and costs

-

Starting a New Project

When you open ARGUS Developer, a new blank project will be created automatically.

To create a new project at any other time:



1. Click on the **ARGUS Button >> New** command
2. Select **Default Project Template** - If you have more than one project template installed, select the one you want from the list
3. The new project will be created with your standard calculation options already set.

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Project Start Date

When you start a new project, the current date from your PC is used to set the project start date. If this is not the date on which your project starts, you will need to specify a new start date.

1. In the Time Scale & Phasing group on the Home tab, click the **Start Date** ellipsis button
2. In the **Date Picker** field, choose a start date.

You can choose any start date from the **Date Picker** field – even if it is earlier than today's date.

Notes

When you change the start date, Developer needs to know how to adjust any dates that depend upon it. Dates like the *Phase Start Date*, *Development Stage Dates,* and *Cash Flow Dates* must all be adjusted.

The Project Start Date has Changed window allows you to specify how the dates will be changed.

- You can make the dates automatically change relative to the project start date.
- You can keep the same dates by adjusting lead in times.

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Calculation Assumptions

Calculation assumptions are all the option settings that control how the program will calculate rents, fees, interest, inflation and so on. It is important to check these settings the first time you start the program to see if they are suitable for the way your organization works.

Any changes you make to the settings will be saved with the project data file.

Some of the things you can do in this screen are:

- Select the assumptions for receipts and income flow
- Specify how purchaser's costs are treated
- Specify the finance setup - Structured Financing or 100% debt funding
- Specify Residual targets for the Land Acquisition Price
- Specify the distribution curve type for construction payments

Expenditure Assumptions

Professional Fees

Professional fees are related to the base construction costs and construction breakdown costs. In addition, you may include contingency and demolition/road costs.

Purchaser's Costs

Purchaser's Costs may be viewed in two ways - as (a) a deduction from the gross capitalization, or (b) as an addition to the total costs:

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- To deduct purchaser's costs from the gross capitalization and place them in the Realization section of the Summary, select **Deducted from Revenue**.
- To add Purchaser's Costs to the total project costs and show them in the Costs section of the Summary, select **Added to Costs**.

There are two options for the calculation of purchaser's costs. They can be calculated on the Gross Development Value or on the Net Development Value.

In some circumstances, it will be appropriate to include sales in addition to capitalized rent in the calculation of purchaser's costs. Select the apply to direct sales box to include any sales.

Sales may include housing for example, where the net value, or price, of the house is the known value. Capitalized rents would, conversely, be discounted to calculate the price from a known gross value which includes purchaser's costs.

If you cannot see the Purchaser's Costs entry box on the Definition Screen

1. Select the **ARGUS** Button >> Configuration >> General tab
2. Select the **Show Purchaser's Costs** option.

Sales Fees

Sales Fees may be viewed in two ways - as (a) a deduction from the gross capitalization, or (b) as an addition to the total costs.

- To deduct Sales Fees from the gross capitalization and place them in the Realization section of the Summary, select **Deducted from Revenue**.
- To add sales fees to the total project costs and show them in the Cost section of the Summary, select **Added to Costs.**

There are two options for the calculation of sales fees. They can be calculated on the gross development value or on the Net Development Value.

Receipts Assumptions

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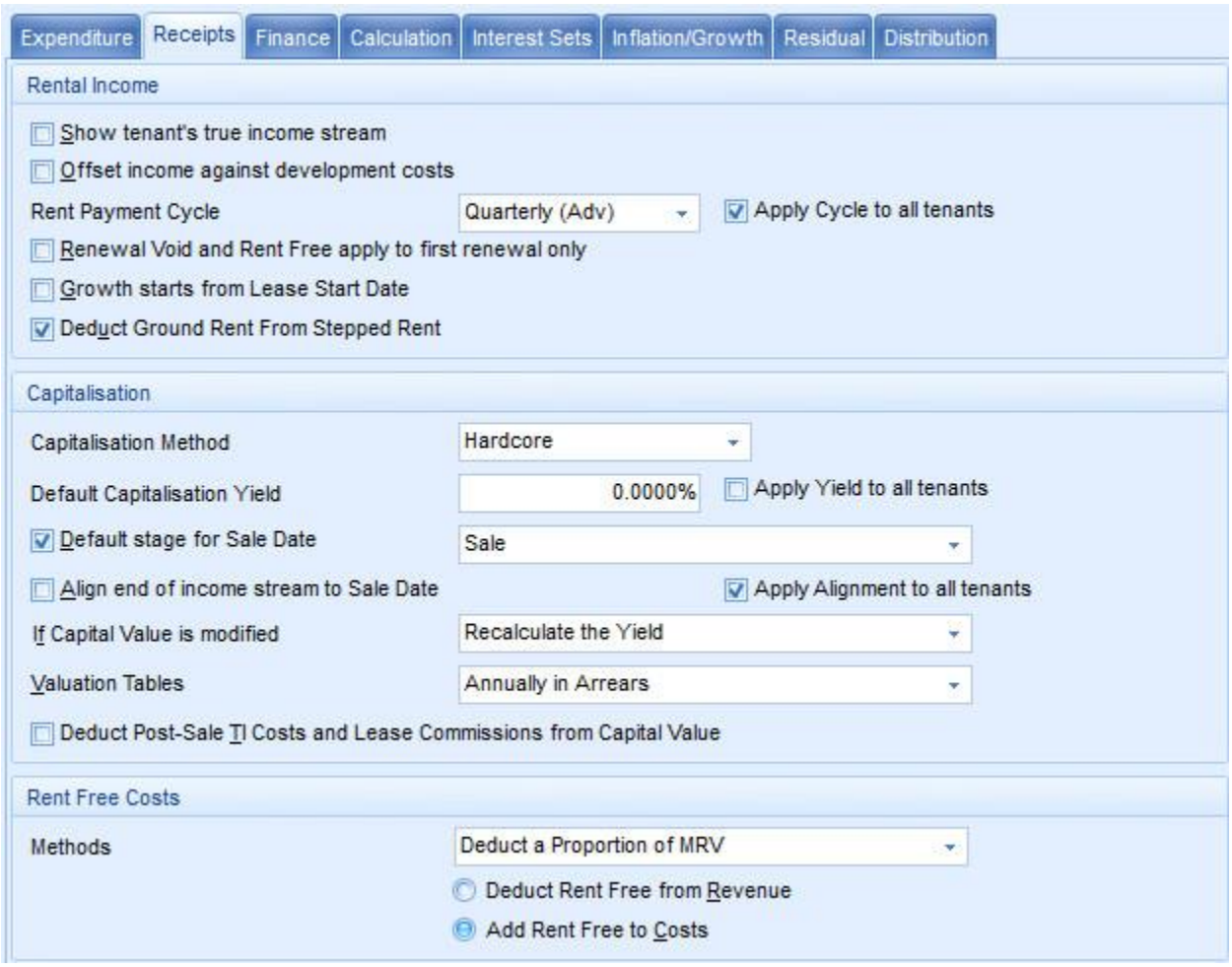

Rental Income

ARGUS Developer will automatically generate an income stream for tenants where developments are retained as investments or where pre-lets are achieved. Before an income stream can be generated, valid lease terms must have been entered for the appropriate tenants. Where lease terms have not been entered, no income stream will be generated.

To	Do this
Generate an income flow from the tenant's lease	Select the **Show tenant's true income stream** option.
Use the income streams to offset development costs	Select the **Offset income against development costs** option.

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Add the income streams to the project's revenue balance	Un-check the **Offset income against development costs** option.
Set the rent payment cycle for existing tenants definitions and each new tenant	Select the rent payment cycle in the drop-down box and check the **Apply Cycle to all tenants** option.
Set the rent payment cycle for new tenants, leaving the existing tenants alone	Select the rent payment cycle in the drop-down box and uncheck the **Apply Cycle to all tenants** option.
Apply a Renewal Void and Rent Free period for the first lease renewal only	Select the **Renewal Void and Rent Free apply to first renewal only** option.
Specify a Renewal Void and Rent Free period for all lease renewals	Un-check the **Renewal Void and Rent Free apply to first renewal only** option.
Specify that the growth starts from the Lease Start Date.	Select the **Growth starts from Lease Start Date** option.
Specify that the Ground Rent is deducted from Stepped Rent.	Select the **Deduct Ground Rent From Stepped Rent** option.

Note: When income is generated, the Rent Free Cost options will be disabled, as the Rent Free period will be accounted for within the cash flow.

Capitalization

To	Do this
Calculate the capital value for each tenant using the hard core method of valuation.	In the **Capitalization Method** drop-down, select the Hardcore" option.

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Calculate the capital value for each tenant using the Initial Yield method of valuation.	In the **Capitalization Method** drop-down, select the Initial Yield" option.
Calculate the capital value for each tenant using the forward project of twelve months' NOI from the Sale Date.	In the **Capitalization Method** drop-down, select the Capitalize twelve month NOI" option. See Calculation of NOI for Capitalization based on twtwelveonths from date of sale.
Apply a default capitalization yield to a new tenant as it is created.	Enter the desired capitalization yield into the **Default Capitalization Yield** field.
Apply the same capitalization yield to all existing tenants and to all new tenants.	Select the **Apply Yield to all tenants** option.
Allow users to establish a tenant by tenant capitalization rate.	Un-check the **Apply Yield to all tenants** option.
Automatically assign a sale date to each tenant.	Select the **Default stage for Sale Date** and choose a stage in the drop-down list.
Synchronize the end of the income flow with the sale of the property, where lease ends before sale date.	Select the **Align end of income stream to Sale Date** option.
Synchronize he end of the income flow with the sale of the property for all tenants.	Select the **Apply Alignment to all tenants** option.
Reduce the capital value by deducting the Post Sale Tenant Improvement Costs and Lease Commissions when the Capitalize twelve month NOI" method is active.	Select the **Deduct Post-Sale TI Costs and Lease Commissions from Capital Value** option.

Manually changing the Capital Value in the Cash Flow

When you are editing area-based items in the Cash flow, for example, a sales receipt or a construction cost, ARGUS Developer will update the linked area record automatically. However, when a capitalized rent is changed, there are two possibilities for updating the area record:

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- Recalculate the yield but keep the same rent rate

  or:

- Recalculate the rent rate but keep the yield the same.

Select *Recalculate the Yield* or *Recalculate the Rent Rate* as appropriate.

Valuation Tables

You can choose the way in which rents and ground leases are valued from the **Valuation Tables** option. Options available are: *Annually in Arrears*, *Quarterly in Advance (Effective)* and *Quarterly in Advance (Nominal)*.

Rent Free Cost Methods

There are several approaches to the calculation of rent free costs.

If you have elected to generate income streams for each tenant, the start of the rent flow will be delayed by the length of the rent free period. The options shown in the Rent Free Costs section will be unavailable.

In cases where income streams are not required, there are two options to represent the loss of income:

- Change the capital value by applying a present value calculation to each tenant. Each capital value will be discounted, or deferred, by the length of the Rent Free period using the capitalization rate.
- Take a proportion of the MRV and either deduct it from the revenue balance, or add it to the cost balance.

Calculation of NOI for Capitalization based on twelve months from date of sale

Calculations

The **Capitalise twelve month NOI** option uses the following calculation methodology:

Base Rental Income - includes the following

- Base Rent from current term at the time of sale and continuing as per the actual term of the lease (such as growth or steps if any).
- If the current term ends during the twelve month period, market rental value during any vacant and/or free rent periods.
- Renewal rent for any subsequent term(s) that fall within the twelve month period.

Note: All of these are subject to any void percentage or fixed amount that was applied at the point of sale (in other words, under the Capitalization section of the Area form). The aggregate of these is the basis of capitalization for the base income component. No further adjustment is made where there is rental loss due to vacancy or free rent.

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% Rent: if there is any percentage rent calculated, it would only apply for the remainder of the term in effect at the time of sale (maximum of twelve months), plus any renewal (only where there is no vacancy or free rent between terms) that falls within the twelve month period. No adjustment would be made for market percentage rent or any renewals where there has been a vacancy or free period.

Rent Additions and Costs: Only those that are capitalized are included. Rent additions and costs are calculated during periods of free rent, so only the treatment of rent additions and costs during vacancy need to be considered. Since base rent is being calculated during periods of Vacancy, rent additions, and costs are included also to simulate having a lease in place. Therefore, rent additions and costs are included during the entire twelve month period, with no need to do separate calculations for each base term/vacant/renewal segment that could be included in the twelve months. These are not subject to vacancy at this time.

TIs and Lease Commissions: It is possible to have TIs and/or commission costs payable in respect of a new or renewal lease that would commence during the twelve month projection. On the Receipts tab in the Capitalization" area, if the **Deduct Post-Sale TI Costs and Lease Commissions from Capital Value** option is checked on, this reduces the proceeds of sale when this capitalization method is active.

Escalation and Inflation
During the twelve month run off period, it is assumed that growth will continue on rent, turnover (percentage) rent and additional rent revenues. Inflation will continue on TI costs and additional rent costs.

Historic Data Files
Existing files are defaulted to calculate according to the current calculation methodology, in respect of capitalization (in other words,off") so values will not change on existing files.

Finance Assumptions

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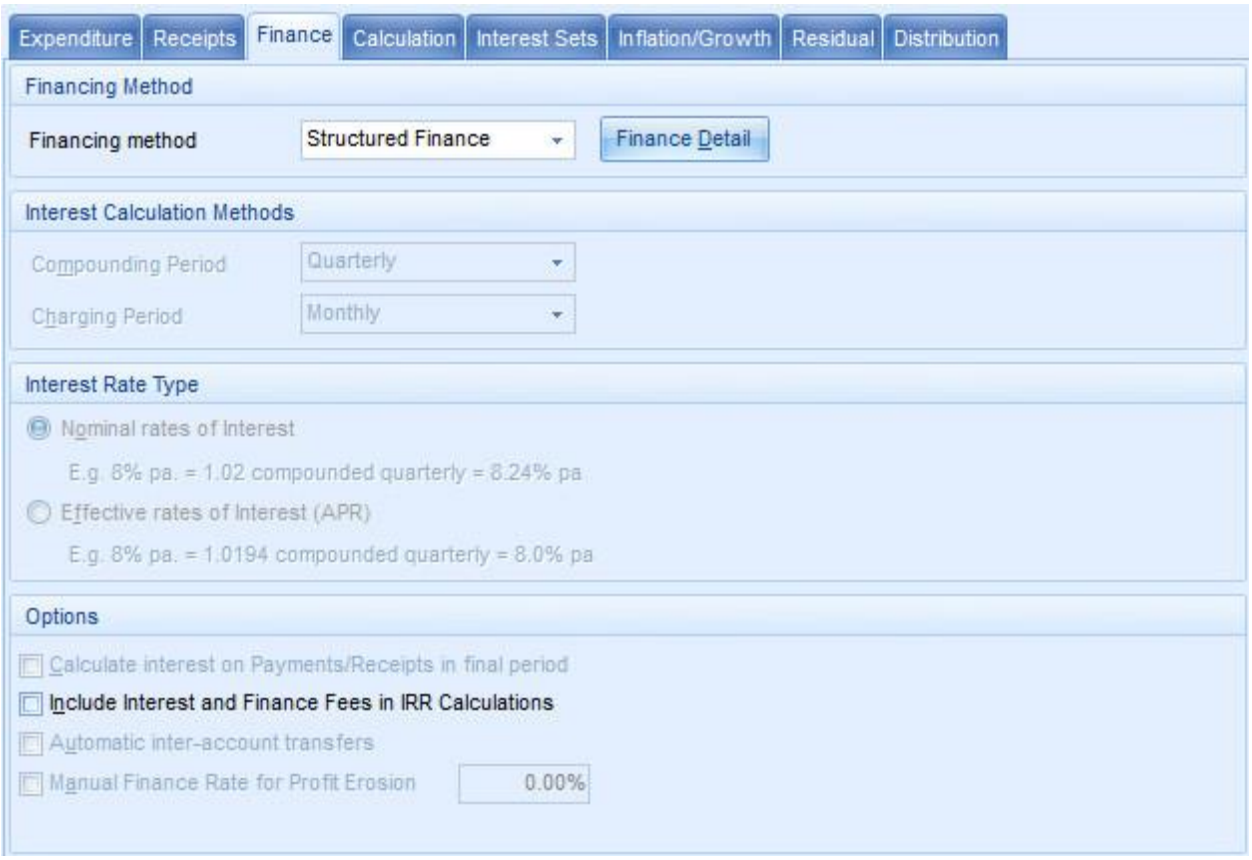

Finance in ARGUS Developer can be analyzed in different ways:

- Basic (Interest Sets) offers 100% debt funding.
- Structured Financing.

Please see Structured Finance for a detailed explanation on Structured Finance.

Select **Basic (Interest Sets)** and many of the options on this page will be available. Select **Structured Finance** and the options on this page will be disabled, since the values are input elsewhere in the program.

The Structured Finance functionality is a separate module of the Developer program. It may or may not be available depending on the contract entered into by the user. The module can be activated later if it is not currently available. This can be done without the need to upgrade the software but using a license key that enables the module. This ensures that Structured Financing can be switched on quickly.

Compounding Period

This is only available when Basic (Interest Sets) is selected. This is the period when the interest will be added to the principal amount. Possible values are *Monthly*, *Quarterly*, *Semi Annual* and *Annual*.

Charging Period

This is the period when the interest amount will be charged and shown in the cash flow. This setting does not affect the calculation of interest.

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Nominal rates of Interest
Selecting this option will apply nominal rates of interest when calculating interest costs.

Effective rates of Interest (APR)
Selecting this option will apply effective (APR) rates of interest when calculating interest costs.

Calculate Interest on Payments/Receipts in Final Period
Selecting this option will allow interest to be rolled up into the Exit Period of the cash flow. Un-check this option and interest will not be charged in the Exit Period.

Include Interest and Finance Fees in IRR Calculations
Selecting this option will use the interest values and finance arrangement fees when calculating the IRR for the project. This option is available for both Basic (Interest Sets) and Structured Financing methods.

Automatic Inter-Account Transfers
When this option is selected, a surplus in any of the interest accounts will be used to pay down costs in other accounts. This option is normally left unchecked.

Manual Finance Rate for Profit Erosion
If this option is selected, you can enter the finance rate that will be used to calculate the profit erosion. Profit erosion is displayed on the Summary page.

Calculation Assumptions

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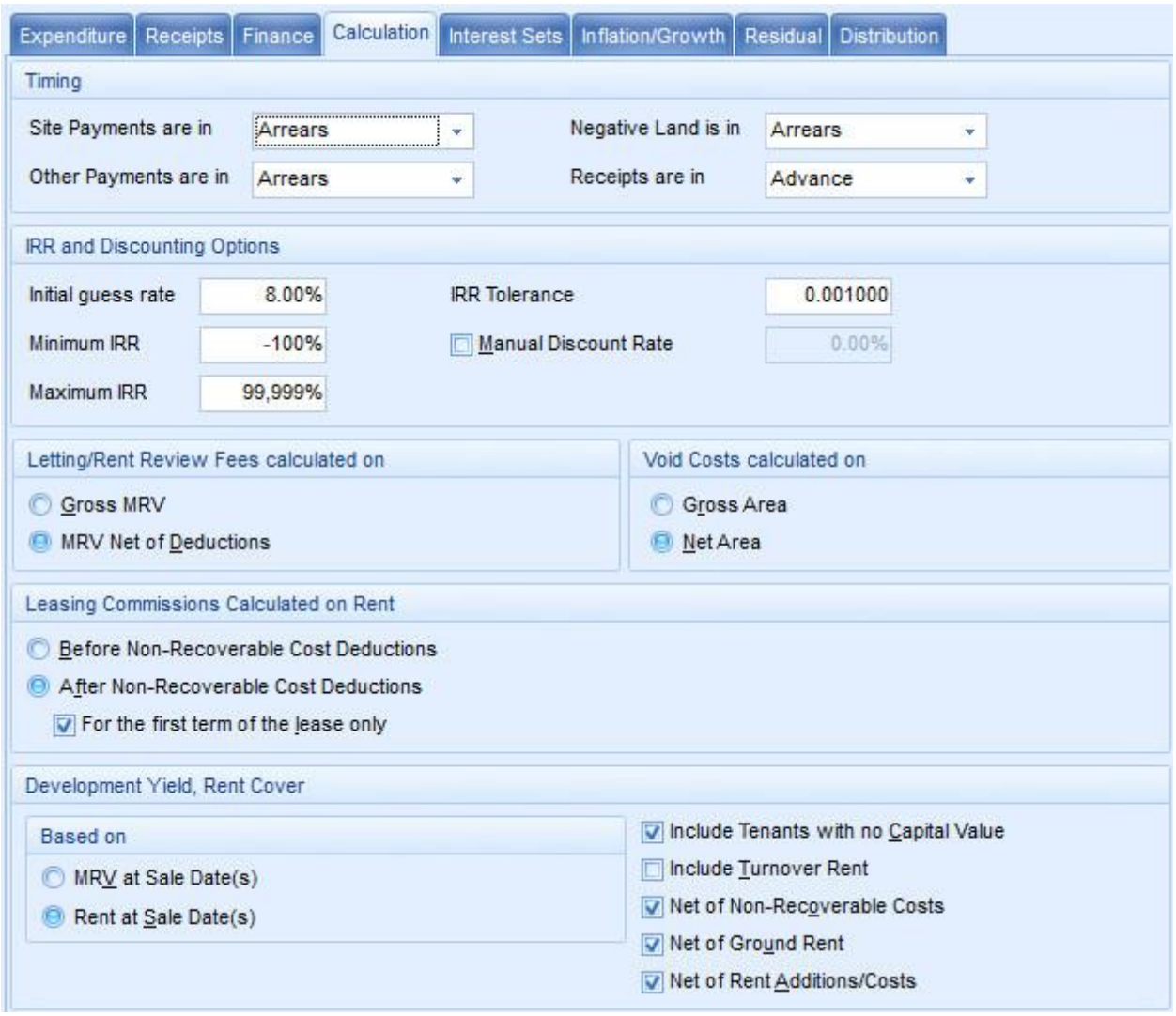

If you cannot see these options on your screen

1. Select the **ARGUS** Button > Configuration > General tab.
2. Select the appropriate option option.

Timing

Site Payments

If site payments take place at the beginning of each period, select *Advance.* If they take place at the end of each period, select *Arrears*.

Other Payments

If payments other than site payments take place at the beginning of each period, select *Advance*. If they take place at the end of each period, select *Arrears*.

Negative Land

If negative land payments take place at the beginning of each period, select *Advance*. If they take place at the end of each period, select *Arrears*.

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Receipts
If receipts take place at the beginning of each period, select *Advance*. If they take place at the end of each period, select *Arrears*. Receipts are usually in advance.

IRR and Discounting Options

Initial Guess Rate
The IRR calculation requires a starting point. This option is used to specify that point and is defaulted to 8%. It will not normally be necessary to change this value. The **Minimum** and **Maximum IRR** options refer to the thresholds within which an IRR will be reported. If the calculated IRR is outside either of the specified thresholds, it will be reported as "Out of Range" in the KPI Dashboard.

Minimum
Here, you can specify a lower threshold. If it is under this threshold, an IRR will be reported as Out of Range.

Maximum
You can use this field to specify a higher threshold. If it is over this threshold, an IRR will be reported as Out of Range.

IRR Tolerance
When calculating an IRR, ARGUS Developer discounts the cash flow repeatedly until the net present value falls between zero and the IRR tolerance.

Manual Discount Rate
Where the cash flow is to be discounted at a rate other than the IRR, select this option and enter the discount rate. The present value and rate will be shown in the Performance Measures section of the Summary report.

Letting/Rent Review Fees calculated on
Letting and rent review fees can either be calculated against the gross Market Rental Value (MRV) or the MRV after deductions.

If you cannot see the Purchaser's Costs entry box on the Definition screen

1. Select the **ARGUS** Button > Configuration > General tab.
2. Select the **Show Letting / Rent Review Fees** option.

Void Costs calculated on
Void costs can either be calculated against the gross area (Gross Area) or the area after deductions (Net Area).

Leasing Commissions Calculated on
This option allows the % of Base Rent or % of Gross Rent Leasing Commissions to be calculated either before non-recoverable costs have been deducted, or afterwards.

The method used up to, and including, version 4.05, was to deduct the non-recoverable costs for the first term of the lease only, then calculate leasing commissions. All renewal terms calculated the leasing commission before any non-recoverable costs were deducted.

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Before Non-Recoverable Cost Deductions: Select this option to calculate the leasing commission before non-recoverable costs are deducted from the rent.

After Non-Recoverable Cost Deductions: Select this option to calculate the leasing commission after non-recoverable costs are deducted from the rent.

For the first term of the lease only: Select this check box if you want to deduct non-recoverable costs for the first term only, before calculating the leasing commission.

For the first term and all renewal terms: Un-check this option if you want to deduct non-recoverable costs for the first term and all renewal terms, before calculating the leasing commission.

Development Yield, Rent Cover

The performance measures development yield and rent cover can be calculated on the gross exit MRV, or the exit MRV after deductions for service charges and/or ground rent. You can specify the calculation method by selecting either of the following radio buttons:

- MRV at Sale Date(s)
- Rent at Sale Date(s)

To enable compatibility with older versions of ARGUS Developer, **Development Yield** options available here are:

- **Include Tenants with no Capital Value:** If a tenant has no capital value because it is valued using a zero yield or an initial yield valuation, you can include the MRV by checking this option.
- **Include Turnover Rent:** This option will only be visible if you have selected *Show Net Development Yield* option in the System Configuration setup window (see General System Configuration). This option allows you to include Turnover (or percentage) rent in the Development Yield calculation.
- **Net of Non-Recoverable Costs:** To deduct percentage and/or fixed deductions from MRV, check this option.
- **Net of Ground Rent:** To deduct Ground Rent from MRV, check this option.
- **Net of Rent Additions/Costs:** To include Rent Additions/Costs, check this option.

If you cannot see the Development Yield options

1. Select the **ARGUS** Button > Configuration > General tab.
2. Select the **Show Net Development Yield** option.

Interest Sets Assumptions

ARGUS Developer enables interest to be calculated by applying Interest and Preferred Return (PR) Sets to every item in the cash flow. A default interest set is automatically applied to each new cost and receipt as it is entered.

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A Set is a group of interest rates that are identified by name and are entered by the user.

A common debit and credit interest rate, or Preferred Return, set is used when the **Structured Financing** option is selected.

Note: When Structured Financing is used, an Interest Set is applied to a Source's total contributions, not to individual cost or receipt items.

Separate debit and credit rates are available when Basic (interest sets) are used.

Developer defaults to use the first set from the list shown to the left hand side of the window. Highlight an entry from the list and the relevant rates are shown in detail on the right.

Users can vary interest rates over time by entering changing rates and the number of months over which each interest rate will run. Rates are entered as annual equivalent values. Enter a rate for zero months and Developer will run this rate in perpetuity or, in reality, to the end of the cash flow.

All items with the same interest set will use the same rates when calculating finance. If you modify the rates within a set, ARGUS Developer recalculates the finance costs for all items attached to that set.

Interest is calculated on the net total amount in each period. Where the net period total is negative (in other words, an outflow), the Debit rate is applied. Where the net period total is positive (in other words, an income), the Credit rate is applied.

An interest set called Interest Set 1 is always created automatically when you start a new project.

Enter the Debit and Credit rates, and the number of months, into the table.

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The example above features two Sets, although an unlimited number can be entered. "Interest Set 1" is highlighted in the set's title bar and the individual rates appear below it.

The project above is currently running Basic (Interest Sets), so both debit and credit rate columns are shown. Select **Structured Finance** and one interest rate column appears. The values entered are used for both interest charging and Preferred Return purposes.

Users can enter multiple interest rates against each loan type or Set. Interest calculations can therefore take account of anticipated interest rate changes over time. Whether the percentage rate is anticipated to run for 6 months or 36, the percentage rate is always an annual value. Entering zero months against a percentage rate means that rate will run in perpetuity from that point in time. We suggest users always enter zero months against the last rate. This ensures interest will always continue to be charged if the length of the cash flow is extended by one month or 30 years.

To add an Interest Set

1. Select the **Add New Set** command
2. Enter the name of the set into the title bar
3. Enter the debit and credit rates into the table

To delete an Interest Set

1. Select the set by clicking on its name or one of its rates
2. Select the **Delete Set** command on the tool bar

Inflation/Growth Assumptions

The following topic refers to Inflation, but the principles apply equally to rent growth sets.

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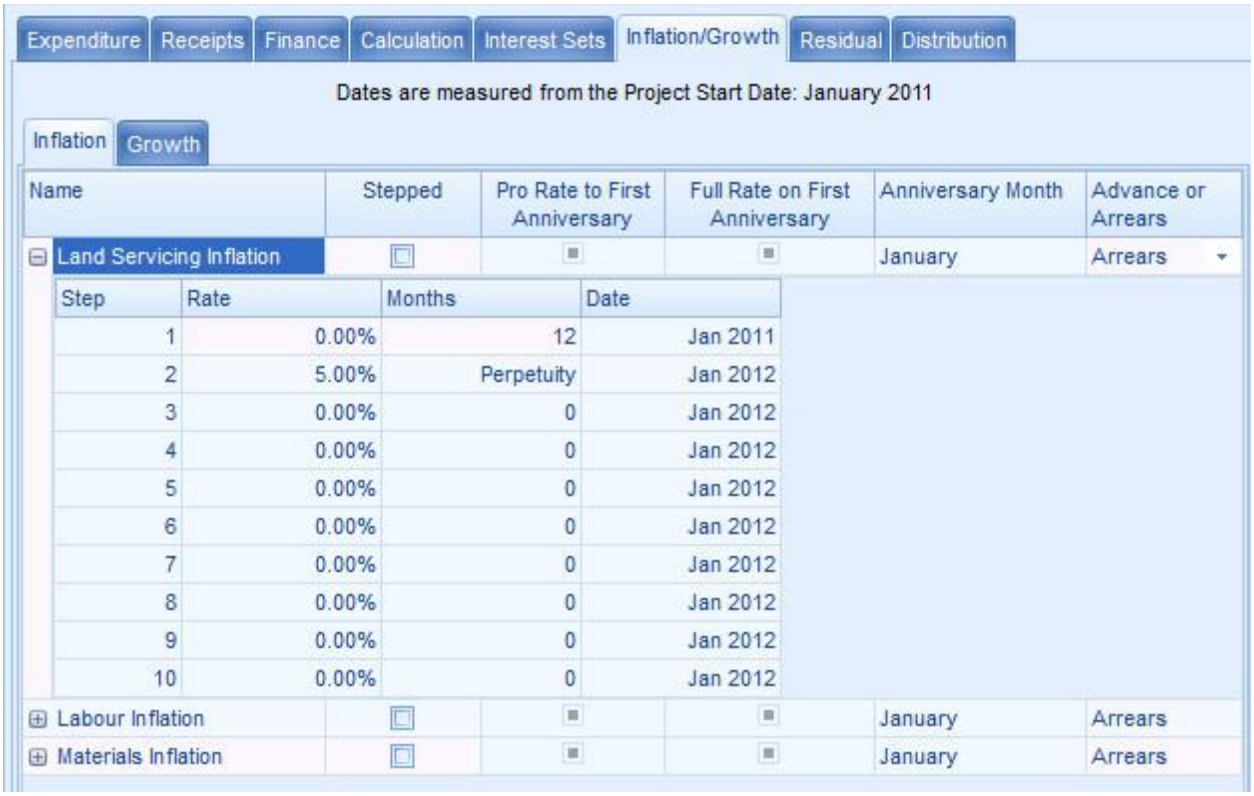
Inflation Sets

Cost Inflation is incorporated by attaching an Inflation Set - essentially a list of rates - to a cost in either the Definitions or the Cash Flow screen. An inflation set is a shorthand way of identifying inflation rates by a name. A set can hold up to ten different inflation rates, each of which becomes active on a specified date.

All costs attached to an inflation set will use the same rate when calculating inflation. If you modify the rate within a set, ARGUS Developer recalculates the inflation for all costs attached to that set.

A set called "Inflation Set 1" is created for each new project and more can be added when necessary. By default, a cost will not have inflation applied to it.

When a cost has inflation applied to it, the inflated figure is shown on all screens and reports.



To add an Inflation or Growth Set

1. Select the **Add New Set** command in the tool bar
2. Enter the name of the set into the title bar
3. Enter the options for stepped rent if applicable
4. Enter the rates and durations of each rate into the table. Where the duration is 0 for the final step, the rate will be used in perpetuity.

To delete an Inflation or Growth Set

1. Select the set by clicking on its name or one of its rates

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2. Select the **Delete Set** command on the tool bar

Note: Inflation or growth will no longer apply to any cost that refers to the deleted set. If you want inflation applied to these items, you will need to attach another inflation or growth set.

To calculate stepped inflation or growth

1. Select the set and check the **Stepped** option
2. Select *Pro-Rate to First Anniversary* to calculate compounded inflation from the project start date.
3. Select *Full Rate on First Anniversary* to use the full annual rate on the first anniversary, rather than a monthly proportion.
4. Drop down the **Anniversary Month** to select the month on which inflation will be stepped.
5. Drop down the **Advance or Arrears** to select whether inflation is applied in advance or arrears.

Residual Assumptions

In many development projects, when you first start putting the project together, the land cost is the unknown element. This is the cost that you want the program to calculate automatically from all other inputs. In other projects, the land cost is already known, and you are evaluating the finance costs or other scenarios.

The Residual Assumptions tab is where you can set up the way in which the land cost is entered and calculated.

The options that control the residual calculations are:

- **Fixed Land Cost:** Where you enter the known land cost
- **Residual Land Cost Only:** Where the program calculates the land cost using a target type
- **Residual and Fixed Land Costs:** Where you enter a manual land cost and then let the program calculate the residual land cost, inclusive of the manual land cost.

To enter known land costs

1. Select the *Fixed Land Cost* option

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To calculate the Residual Land Cost

1. Select the **Residual Land Cost Only** option
2. Enter the Target Type used to determine the land cost
3. Enter the target rate for each phase into the table

To enter a known land cost and calculate the Residual Land Cost (Basic Finance)

1. Select the **Residual and Fixed Land Costs** option
2. Enter the target type used to determine the land cost
3. Enter the target rate for each phase into the Phase Targets table

To enter a known land cost and calculate the Residual Land Cost (Structured Finance)

1. Select the **Residual and Fixed Land Costs** option
2. Enter the target type used to determine the land cost for each structure
3. Enter the target rate for each finance structure into the Finance Structure Targets table

Residual Land Determinants

The determinants used to calculate the residual land cost are the Target Type and the Target Rate.

Click on the **Target Type** drop-down box and select a target. There are seven target measures: Profit on Cost, Profit on GDV, Profit on NDV, IRR, Equity IRR, Development Yield and Profit Amount.

The Target Rate is the value that the residual function will use as a threshold to determine whether the correct land cost has been found. All Target Types will require an entry to be made for each defined phase or finance structure.

Locked Value In phases or finance structures where the land cost is known, this option will exclude them from the residual land cost calculations. Using this option, you can mix both known and unknown land costs in the same project.

To allow entry of a known land cost on the Definition page, put a check in this field.

Treat Negative Land as Revenue: There may be some developments where the costs far outweigh any income receivable from the sale. If you are looking for a specific return in these circumstances, a negative land cost may be generated. In essence, the program treats a negative land cost as if it were an injection of money into the project so that a profit can be realized. Due to the sensitivity of the residual targeting function, it may be necessary to treat the negative land as an income rather than a cost. If the program is not producing a value, try checking the **Treat Neg. Land as Revenue** option.

Multi-Phasing - Single Land Cost

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If you are working with a multi-phased project that uses basic interest, you can elect to calculate a single, up front land cost for all linked phases. When this option is active, the program will merge all linked phase cash flows before calculating a single land cost.

When viewing the cash flow or summary for individual phases, there will be no land cost or fees shown. To show the residual land cost valuation together with fees, select the Merged Phase tab in original linked Phases mode or in a new grouping.

If you are entering stamp duty and acquisition fees as percentage values, they must be entered into the first phase of your linked scheme. When the program is calculating the residual land cost, it will use the fee structure from the first linked phase.

To calculate a single land cost

1. Select *Single Land Residual at project start* from the **Multi-Phasing** drop-down list.
2. Choose a target type in the drop-down list.
3. Enter a value into the **Single Value (target rate)** field.

Multi-Phasing - Separate Valuations

You may elect to perform separate valuations for each phase in a linked scheme. When you select the Merged Phases tab, the individual valuations and cash flows from each phase will be added together in a single project cash flow. The interest will then be recalculated on the combined cash flow, giving a total interest cost that is different from the aggregate of interest costs in individual phases.

When viewing the cash flow or summary for individual phases, the land cost and fees will be included.

To calculate separate land costs

1. Select *Separate Land Residual for each phase* from the **Multi-Phasing** drop-down list.
2. Choose a target type in the drop-down list.
3. Enter a value into the target rate field. You may enter different rates for each phase.

Finance Structures - Single Land Cost

If your project is using Structured Finance and you have created user-defined Finance Structures, the Single Land Cost option is not available.

Finance Structures - Separate Structure Valuations

If your project is using Structured Finance, you can calculate the land cost for each structure. When you select the Merged Phases tab in a single structure, the Land Cost will be calculated.

When you select the Merged Phases tab for the All Active Structures phase group, each of the valuations and cash flows from the individual structures will be added together in a single project cash flow. This is a true aggregate of the total revenues, costs, interest and fees from each of the active finance structures.

Distribution Assumptions

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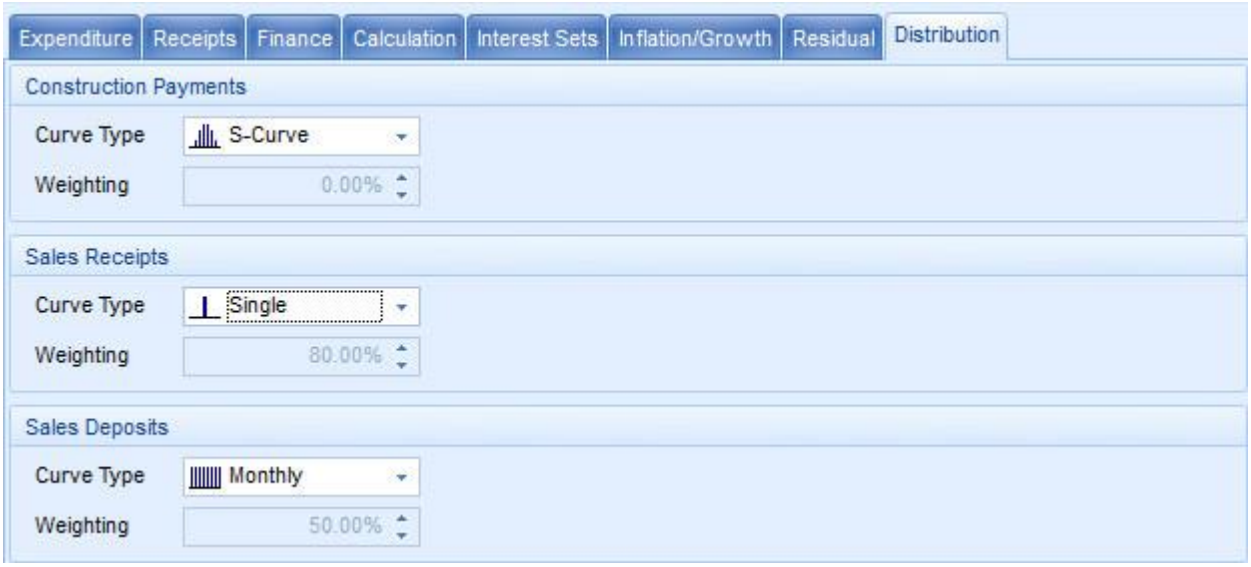
Make settings for the default timing of construction payments, sales receipts and sales deposits on this page.



Construction Payments

Choose the manner in which construction costs will be distributed in the project. The default setting is S-Curve. This may be changed by selecting a curve type in the drop-down menu.

If a Weighted payment is selected, you can enter the weighting percentage value. A value less than 50% shows a straight-line curve whose values rise and a value greater than 50%, a curve whose values fall.

If you change the option for construction costs, when you click on the **OK** button you will be asked to confirm your change, and whether you wish to redistribute existing construction items.

Sales Receipts

Choose the manner in which Sales Receipts will be distributed in the project. The default curve type is *Single*. This may be changed by selecting a curve type in the drop-down menu.

Sales Deposits

Choose the manner in which sales receipts will be distributed in the project. The default is a monthly distribution. This may be changed by selecting a curve type in the drop-down menu.

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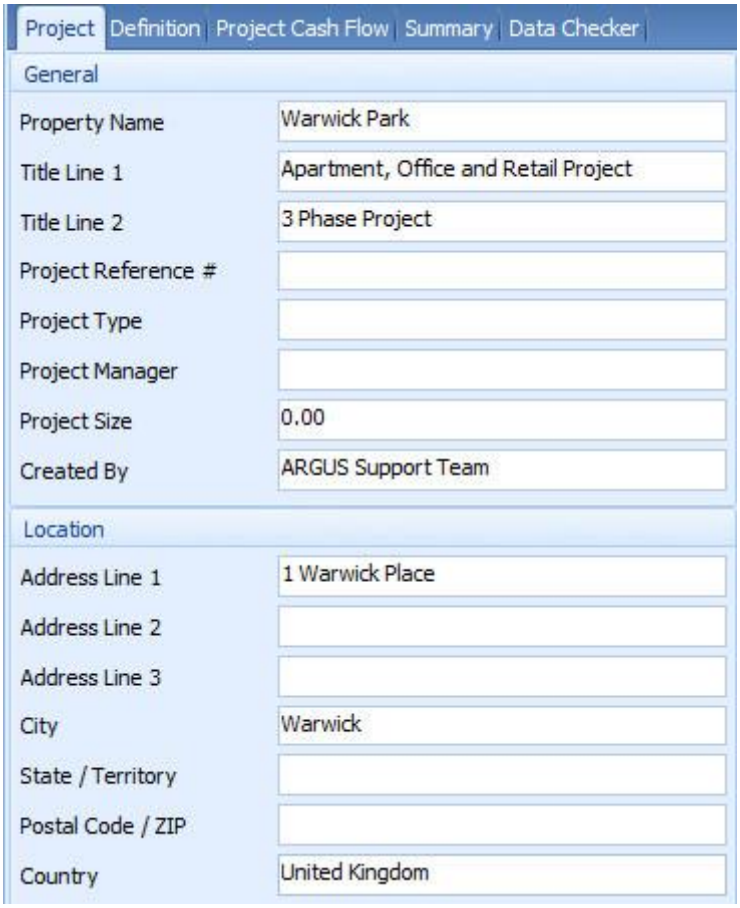
Project Details

Use the Project tab to enter property and location details for the project.



Property Name: The name of the property or development.

Title Line 1 & 2: Title lines which appear on reports.

Project Reference #: A reference number used to identify the project.

Project Type: A free-form field that can be used to describe the type of project.

Project Manager: The name of the project manager.

Project Size: A free-form field that can be used to describe the size of the project.

Created By: The name of the person that created the project in ARGUS Developer.

Location: The fields in this group are used to identify the location of the property or development. Each of the fields is used to show the property a live map on the Map tab to the right.

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Timescale & Phasing

Time Scale & Phasing

Time Scale & Phasing is a key component of ARGUS Developer. Each cost and revenue item is linked to the time scale so that a timed cash flow can be automatically generated and updated. Construction dates, lease starts, unit sales, finance structures, and interest costs all rely on the information entered into this area.

Developer is designed to make the timing and distribution of cost and revenue elements as easy as possible. By making changes to the start, end or duration of the different stages of a development time scale, the residual land cost, cash flows, financing, interest costs and key performance indicators are instantly updated.

Development Time Scale

Before any cost or revenue elements are entered into Developer, it is recommended that the Time Scale be set up. This will allow you to use the full range of data distribution tools as you are entering time-based information.

Use the **Time Scale & Phasing** command button to create and edit the time scale and phasing for your project.

Project Start Date

When the project start date is changed, the program automatically adjusts the time scale of each of the phase dates, development stages, and all costs and revenue items within each phase. Before the project can be updated, the program needs to know whether to move items relative to their existing dates, or to keep them fixed so that they do not change.

After changing the Project Start date, the following options are available:

First, specify how you want the phase start date to be adjusted, using the controls in the Phase Start Dates section:

- **Keep Phase Start Dates:** The dates are not changed for any phases that start after the project start date. Any phases that start before the new project start date will be changed to start on the project start date.
- **Keep the same lead in period from the Project Start Date:** Changes each phase start date so that the same lead in period is maintained between the project start date and the phase start date.
- **Align Phase Start Dates to the Project Start Date:** Makes each phase start date the same as the project start date.

Next, specify how you want the phase time scale to be adjusted, using the controls in the Phase Time Scale Adjustments section. Here, you can adjust a phase's timing relative to a specific date, a specific period or the project start date.

The term *Items* in each of the headings below is used to denote any of the following:

- Development state dates
- Dates for costs or revenues
- Dates for contributions/repayments/mortgage in structured finance
- Construction/Lease/Capitalization Dates
- Any other data that depends on choosing a date for its timing

Items timed to a specific period

If you have items that start on a specific period, choose from:

- Moving the data so that it starts on the same period.
- Moving the data so that it starts on the same number of periods after the new phase start date.

Items timed to a specific date

If you have items that start on a specific date, choose from:

- Moving the data so that it starts on the same date.

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- Moving the data so that its start date has the same lead in time from the new phase start date.

Items timed relative to project dates
If you have items that start on a specific development stage date, choose from:

- Moving the data so that the same Offset period is maintained from the phase start date.
- Moving the data so that its start date has the same Offset period from the development stage's start date.

Phase Start Date

When a phase start date is changed, the program automatically adjusts the time scale of each of the development stages and all costs and revenue items within each phase.

Before the project can be updated, the program needs to know whether to move the start date of each item relative to its current date or to keep the same start date so that the data does not move.

After changing the Phase Start date, the following options are available:

Specify how you want the phase time scale to be adjusted, using the controls in the Phase Time Scale Adjustments section. Here, you can adjust the timing of each item within a phase.

The term 'Items' in each of the headings below is used to denote any of the following:

- Development state dates
- Dates for costs or revenues
- Dates for contributions/repayments/mortgage in structured finance
- Construction/Lease/Capitalization Dates
- Any other data that depends on choosing a date for its timing

Items timed to a specific period
If you have items that start on a specific period, choose from:

- Moving the data so that it starts on the same period.
- Moving the data so that it starts on the same number of periods after the new phase start date.

Items timed to a specific date
If you have items that start on a specific date, choose from:

- Moving the data so that it starts on the same date.
- Moving the data so that its start date has the same lead in time from the new phase start date.

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Items timed relative to project dates

If you have items that start on a specific development stage date, choose from:

- Moving the data so that the same Offset period is maintained from the phase start date.
- Moving the data so that its start date has the same Offset period from the development stage's start date.

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Phases

Project and Phase Information

Project Start Date: The project start date is entered using the **Project Start Date** button on the Home tab. Use the **Date Picker** field to select the Month and Year in which the project starts. All dates are assumed to be the first of the month.

When you change the Project Start Date, the dates of all phases and tenant leases will be updated automatically. You will be asked to confirm whether you want them to be updated and options are available to specify how they will be changed.

Phase Start Date: The start date of a phase can be either the same, or later than, the project start date. Use the **Date Picker** ellipsis to change the phase start date to a later date.

Phase Name: Each phase may be given a name that identifies it in different parts of the application. Enter the name into the **Phase Name** field. The name you enter here will be shown on the Phase Tabs underneath the time scale stages table. It will also be shown on the Phase Tabs in the main application workspace. To ensure that the phase name appears on the phase tabs, check the *Phase Names* option on the Home tab.

Phase Data Type: Each phase can hold different types of information – either development costs and revenues, or infrastructure costs. The first phase in a project must always contain development costs and revenues. Any other phase, though, can hold either kind of information.

See Also

Infrastructure Costs

To nominate a phase to hold development costs and revenues, select ***Project Revenues and Costs***

To nominate a phase to hold infrastructure costs, select ***Infrastructure Costs Only***

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Development Phases

Creating Phases

New phases can be created either by adding, inserting, or copying an existing phase. If you use a template for creating new projects, it is possible to use the phase settings in the template to add or insert each new phase. If you choose not to create new phases from the template, a blank phase will be created instead.

To add a phase with default phase settings

In the Time Scale and Phasing area, select the **Add New Phase** command on the Home tab.

Before adding a phase, ensure that the option to add phases with default settings is *checked* in the General tab within the Preferences area. Use the **Application** button to open the Preferences window then check the **Add New Phases from Default Template** option.

To add a blank phase

In the Time Scale and Phasing area, select the **Add New Phase** command on the Home tab.

Before adding a phase, ensure that the option to add phases with default settings is *unchecked* in the General tab within the Preferences area. Use the **Application** button to open the Preferences window then check the **Add New Phases from Default Template** option.

To add an infrastructure cost phase

Select the **New Infrastructure** command on the Home tab.

Using this command is a shortcut way of adding a phase then selecting *Infrastructure Costs Only* from the **Phase Data Type** drop-down list.

To insert a new phase

To insert a new phase before an existing phase, click on the phase then select the **Insert** command from the Home tab.

To insert the new phase with default phase settings already created, please review the topic To add a phase with default phase settings.

To insert a blank new phase without default phase settings, please review the topic To add a blank phase.

To copy a phase

Copying a phase is a quick way to replicate all the settings from the Time Scale

Assumptions, Areas - Rent and Sales, Definitions, and Cash Flows. To make a copy of a phase follow the three simple steps below:

- Select the phase tab and click on the **Copy** command on the Home tab.

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- Next, select where you would like the phase to be copied to - either over an existing phase or as a new phase.
- Finally, click the **OK** button.

Quick phase copy

You can quickly copy a phase to another phase by holding down the SHIFT key, clicking on a phase and dragging it over another phase. A red outline will appear around the target phase and you can release the mouse to make the copy.

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Deleting Phases

To permanently remove a phase from the project, use the **Delete** command. Select the tab of the phase you want to delete then select the **Delete** command on the Home tab.

When you delete a phase, all area records, cash flow lines, costs, fees, revenues, and so on are deleted. If you are deleting any phase other than the final phase, phases will be renumbered after the existing phase is removed.

If you delete the last remaining phase in the project, a default empty phase will be added automatically.

Delete phase options

Sometimes a phase that you want to delete will be linked to other areas of the project. For example, the repayment dates or analysis dates within finance structures are linked to the phase.

When this happens, a confirmation window is shown that allows you to specify what happens next.

To	Do this
Delete the contents of the phase but retain the phase in the list so that no data is changed in other areas	Select the option to **Delete the contents but retain the Phase**
Remove the phase and all its contents and update any dates that depend on this phase	Select the option to **Permanently delete the phase and all its contents**

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Merging Phases

Where you have more than one phase in a project, you will usually want to get a valuation for the combination of all phases. Merging the phases will create one large cash flow of all the costs and revenues from each phase. The finance will be recalculated to show the effect on interest costs. All Key Performance Indicators will be recalculated in the KPI Dashboard.

To merge phases, select the Merged Phases tab on the Phase Tab bar in the main application workspace.

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Moving Phases

The order in which phases are displayed in the project can be changed by clicking on to a phase and dragging it to either before or after any other phase on the Phase Tab bar. This can be done either within the Time Scale and Phasing area or in the main application workspace.

When you drag a phase to a different position, a red insertion marker shows where the phase can be moved to. When the red insertion marker is shown, you can release the mouse to drop the phase into its new position.

Note: After moving a phase, the residual land value may change if you are using a residual mode that targets a single land value at the start of the project.

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Grouping Phases

Grouping phases in different combinations is an easy way to organize a project into logical phase units either by use type, by development program or for highest and best use analysis.

To group phases

Select the **Groups** command from the Home tab.

The All Phases group is created by default to hold all phases - it cannot be deleted and the phase selection cannot be changed. Its name can be changed, if required, but the help system will refer to it by the name All Phases.

To create a project phase group

Create a new project phase group by selecting the **Add Group** command from the tool bar.

Give the new group a name by typing its name into the table.

Select the phases you want to group together by checking the **Include** option against each phase name in the right hand pane.

To delete a project phase group

Delete a project phase group by selecting the **Delete Group** command from the tool bar.

Select the group you want to delete then delete it. All references to the group will be removed from the project. You will no longer be able to select it from the Phase Group selector within the Time Scale area or the main application workspace.

To include or exclude all phases

You can quickly include or exclude all phases from a phase group using the **Include** and **Exclude** commands from the tool bar.

To extend the phase length

Earlier versions of Developer automatically enabled interest to carry on calculating from the point at which the sale of the site took place at the end of the phase time scale until the end of the project.

To maintain compatibility with these earlier versions and achieve the same results, you can use the **Extend Phase Length** option against a phase group. Leaving the box unchecked will terminate the interest calculations at the end of the phase time scale.

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Stages

Development Stages

There are seven predefined stages of development that can be used to describe the time scale of a phase. Their order in the table follows the typical sequence of a development project. Each stage records its duration and start date, plus other information about how the stage is anchored to others.

Every cost and revenue entered into the project is automatically linked to the one of the stages defined in this area. If the start date or the duration of any stage is changed, all dependent costs and revenues will be automatically with new start dates and distributions.

Stages are linked together by default so that a change in one stage's duration automatically updates the others. The default setup is to have the timing run from purchase to sale, with each stage starting only after the previous one is completed.

Other stage linking possibilities include:

- Stages are linked, but you choose the order
- Stages can be unlinked and manually timed to any date in the time scale
- Stages can run concurrently

Stage Name: Each of the stages has a default name. You can change the name of any of the stages to suit your particular development. Changing the name, however, does not change the stage's purpose. To change a stage name, click into the **Development Stage** field and press F2 to edit.

Stage Duration: The duration of each stage is measured in months. You do not have to enter the duration for every stage. Where your project does not have a need for a stage, enter zero (0). The most commonly used stages are Pre-Construction, Construction, and Letting.

Start Date: The starting date for the development stage.

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Entering the Stage Time Scale

The time scale for a phase is entered by typing the duration of each stage into the timetable. When the lengths of each stage have been entered, you can modify how the stages are linked together. Stages can be modified using the keyboard, or by dragging bars around the time chart with the mouse.

To change the start date or duration of a stage

To change the start date of any stage using the keyboard, first show the Stage Anchors columns in the table by checking the **Stage Anchors** option on the Home tab.

To	Do this
Change the Start Date	Click the ellipsis button in the Start Date column and select a date from the Date Picker.
Unlink the stage and let it have its own start date	Select **Fixed Date** from the Anchored To column.
Change the start date *and* unlink it from other stages	Click on the left end of a time bar and drag either to the left or the right.
Keep the start date but change the duration without affecting other stages	Click on the right end of a time bar and drag either to the left or the right.
Change the start date and duration without affecting other stages	Hold down the SHIFT key, click on the left end of a time bar and drag either to the left or the right.
Change the start date but keep the duration and update any linked stages	Hold down the SHIFT key, click into the middle of a time bar and drag either to the left or the right.
Change the start date but keep the duration without affecting any other stages	Click into the middle of a time bar and drag to the left or to the right.

To change the way stages are linked

Click into the chart part of the timetable

To	Do this

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Make a stage's timing depend on another stage	Select the stage you want to link to from the Anchored To column
Make a stage start when another stage starts	Select *Start* from the Align column
Make a stage start when another stage ends	Select *End* from the Align column
Enter a lag between the start of a stage and the start or the end of another stage	Enter the number of months lag in the Offset column
Make a stage start before another stage ends	Link the stages using the Anchored To column, select *End* from the Align column and enter the months as a negative number in the Offset column

To reset the linking between all stages

To remove all changes to the linking, alignment and lags between stages, click the **Reset** command on the Home tab. The **Reset** command removes all manual changes and resets each stage to an end-to-end alignment as show in the illustration below.

To auto-calculate Construction and Sales stages

For residential projects, it is useful to make Developer calculate automatically the length of the construction and sales stages. The length of the Construction stage is calculated from the number of Construction Starts per Month and the length of each construction period. The length of the Sales stage is calculated from the sales velocity and period to completion from the sales schedules.

Select the **Auto Adjust Stage Timing** option on the Home tab to make Developer calculate the stage lengths. When this option is checked, the Construction and Sales stages are locked to prevent any manual changes to the start date or duration.

To change the scale of the stages chart

You can zoom in or out to show more or less stage chart data by changing the Time line Scale.

To show all stages over the entire phase, select *Scale to Fit*.

To show other views that zoom in on the detail, select from *Monthly*, *Quarterly*, *Semi-Annual*, or *Annual*.

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Dependencies

Dependencies

The powerful Time Scale and Phasing function allows you to create phase or stage dependencies. A dependency occurs when the start of one phase or stage depends upon the start or finish of another. Most stages are dependent upon other stages unless you insert fixed stage dates. You can easily make changes to one stage and immediately see the effect it has on the land value and calculated results.

Linking Phases and Stages

When linking phases, you can specify different types of dependencies. There are several types of dependency used for linking phases:

- Lag from Project Start Date
- Finish to Start, which means that the predecessor phase must finish before the successor phase can start
- Finish to Start (Stage) which means that the predecessor stage must finish before the successor phase can start

As you set dependencies and dates, Developer adjusts the time scale and any time-based data that you have entered into the project.

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Phase Dependencies

Phase dependencies can be set for all phases other than the first phase in the project. The first phase always starts on the project start date.

To enter a dependency

1. In the **Phase Start Date** field, click on the ellipsis
2. In the drop-down list of the **Phase** field, select the phase that you want to depend upon
3. In the drop-down list of the **Stage** field, select the stage that you want to depend upon
4. In the **Stage** field, select *Start* or *End*
5. In the **Offset by** field select an additional lead in (negative number) or lag (positive number)
6. Click the **OK** button

Note: You cannot enter a number of months in the **Offset by** field if you have chosen the stage *Phase Start*.

To set a fixed phase start date

A fixed date can be set for all phases other than the first phase in the project. The first phase always starts on the project start date.

To enter a fixed start date, use the following method:

1. In the **Phase Start Date** field, click on the ellipsis
2. Under the **Date** field, click the date picker and select the date.

To make a phase start when another phase finishes

To set a phase to start when another phase finishes, use the following method:

1. In the **Phase Start Date** field, click on the ellipsis
2. In the drop-down list of the **Phase** field, select the phase that you want to depend upon
3. In the drop-down list of the **Stage** field, select the Sales stage
4. Under the **Stage** field, select *End*
5. Click the **OK** button

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Stage dependencies

Stage dependencies can be set for all stages in a phase, although the first stage, *Purchase*, can be dependent only on the Phase Start or a Fixed Date.

To set stage dependencies

1. If you can't see the Anchored To, Align, or Offset columns, check the **Stage Anchors** option on the Home tab
2. Select the stage that is dependent on another
3. In the Anchored To column, select the stage that this stage is dependent upon
4. in the Align column, select whether this stage is dependent upon the Start or End of the other stage
5. In Offset, select an additional lead in (negative number) or lag (positive number)
6. Click the **OK** button

No.	Development Stage	Duration (Mths)	Start Date	End Date	Anchored To	Align	Offset
1	Purchase	0	Jan 2010	Jan 2010	Phase Start	Start	0
2	Pre-Construction	5	Jan 2010	May 2010	Purchase	End	0
3	Construction	5	Jun 2010	Oct 2010	Pre-Construction	End	0
4	Post Development	0	Nov 2010	Nov 2010	Construction	End	0
5	Operations Start	0	Nov 2010	Nov 2010	Post Development	End	0
6	Income Flow	18	Nov 2010	Apr 2012	Operations Start	End	0
7	Sale	0	May 2012	May 2012	Income Flow	End	0
	Phase length	28 mths	allows for overlapping stages				

To set a fixed stage start date

1. In the Start Date column, click on the ellipsis
2. In the date picker, select the *Month* and *Year*
3. Click the **OK** button

To make a stage start when another stage finishes

1. In the Anchored To column, select the stage that this stage is dependent upon
2. In the Align column, select the *End* option

To make a stage start when another stage starts

1. In the Anchored To column, select the stage that this stage is dependent upon
2. In the Align column, select the *Start* option.

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To make a stage start when a stage in another phase finishes or starts

1. Select the *Extended Timing* option on the Home tab
2. Under the Anchored To column, click the ellipsis
3. In the drop-down list, the **Phase** field, select the phase that you want to depend upon
4. In the drop-down list of the **Stage** field, select the stage that you want to depend upon
5. Under Stage, select the *Start* or *End* option
6. In the **Offset by** field, select an additional lead in (negative number) or lag (positive number)
7. Click the **OK** button

To enter a lead in or lag between stages

1. In the Offset column, enter a lead in period as a negative number or a lag as a positive number

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Creating Dependencies between Phases and Stages

The powerful Time Scale and Phasing function allows you to create phase or stage dependencies. A dependency occurs when the start of one phase or stage depends upon the start or finish of another. Most stages are dependent upon other stages unless you insert fixed stage dates. You can easily make changes to one stage and immediately see the effect it has on the land value and calculated results.

Linking Phases and Stages

When linking phases, you can specify different types of dependencies. There are several types of dependency used for linking phases:

- Lag from Project Start Date
- Finish to Start, which means that the predecessor phase must finish before the successor phase can start
- Finish to Start (Stage) which means that the predecessor stage must finish before the successor phase can start

As you set dependencies and dates, Developer adjusts the time scale and any time-based data that you have entered into the project.

To set phase dependencies

Phase dependencies can be set for all phases other than the first phase in the project. The first phase always starts on the project start date.

To enter a dependency, use the following method:

1. In the **Phase Start Date** field, click on the ellipsis
2. In the **Phase** drop-down, select the phase that you want to depend upon
3. In the **Stage** name drop-down, select the stage that you want to depend upon
4. Under **Stage**, select *Start* or *End*
5. In **Offset by**, select an additional lead in (negative number) or lag (positive number)
6. Click the **OK** button

Note: You cannot enter a number of months in the **Offset by** field if you have chosen the stage *Phase Start*.

To set a fixed phase start date

A fixed date can be set for all phases other than the first phase in the project. The first phase always starts on the project start date.

To enter a fixed start date, use the following method:

1. In the **Phase Start Date** field, click on the ellipsis
2. Under **Date**, click the date picker and select the date.

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To make a phase start when another phase finishes

To set a phase to start when another phase finishes, use the following method:

1. In the **Phase Start Date** field, click on the ellipsis
2. In the **Phase** drop-down, select the phase that you want to depend upon
3. In the **Stage** name drop-down, select the sales stage
4. Under **Stage**, select *End*
5. Click the **OK** button

To set stage dependencies

Stage dependencies can be set for all stages in a phase, although the first stage, *Purchase*, can be dependent only on the Phase Start or a Fixed Date.

To set stage dependencies, use the following method:

1. If you can't see the Anchored To, Align, or Offset columns, check the **Stage Anchors** option on the Home tab
2. Select the stage that is dependent on another
3. In the Anchored To column, select the stage that this stage is dependent upon
4. in the Align column, select whether this stage is dependent upon the Start or End of the other stage
5. In Offset, select an additional lead in (negative number) or lag (positive number)
6. Click the **OK** button

To set a fixed stage start date

1. In the Start Date column, click on the ellipsis
2. In the date picker, select the *Month* and *Year*
3. Click the **OK** button

To make a stage start when another stage finishes

1. In the Anchored To column, select the stage that this stage is dependent upon
2. In the Align column, select *End*

To make a stage start when another stage starts

1. In the Anchored To column, select the stage that this stage is dependent upon

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2. In the Align column, select *Start*

To make a stage start when a stage in another phase finishes or starts

1. Select the **Extended Timing** option on the Home tab
2. Under the Anchored To column, click the ellipsis
3. In the **Phase** drop-down, select the phase that you want to depend upon
4. In the **Stage** name drop-down, select the stage that you want to depend upon
5. Under **Stage**, select *Start* or *End*
6. In **Offset by**, select an additional lead in (negative number) or lag (positive number)
7. Click the **OK** button

To enter a lead in or lag between stages

1. In the Offset column, enter a lead in period as a negative number or a lag as a positive number

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Validation

Validation

Changes to the time scale and phasing are instantly reflected in all parts of the project. All time-based information in the area schedules, cash flow, finance structures, and sensitivity analysis is updated. These changes are then validated to ensure that the timings of any manually overridden items do not fall outside the bounds of the newly changed time scale. To ensure that manually timed items are identified, a validation check is undertaken after each change to the time scale and phasing.

Changes that cause the project to be reorganized are:

- Changing the project start date
- Changing the phase start date
- Shortening the duration of a stage
- Moving a stage
- Unlinking a phase
- Copying or deleting a phase

Causes of invalid timing are:

- An item starts before the project start date
- An item starts before the phase start date
- An item starts after the phase end date
- An item starts within the phase, but ends after the phase
- An offset is greater than the length of its parent stage

If invalid timing is detected, a warning is shown with options to correct the situation. A tab named Validations is shown at the foot of the window. Follow the hyperlinks to make corrections to the timing of any items listed.

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Reporting

Time Scale and Phasing Chart Report

A report is available that shows each of the phases in a project as a bar chart, similar to the ones on the Time Scale and Phasing screen. All phases are included in the report and a Merged Phases graph can also be shown.

Options to control the content and format of this report can be found on the report content within the Page Setup area of the Report Preview area in the main application workspace. When you preview or print from the Time Scale and phasing area, these options will be used to produce the report.

To preview the report before printing, select the **Preview Report** command on the Home tab.

To send the report directly to the printer, select the **Print Report** command on the Home tab.

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Structured Finance

Structured Finance

The Structured Finance module allows you to quickly model the finance component of real estate projects or portions of projects you have created in ARGUS Developer. An unlimited number of project participants and loans can be set up in the Structured Finance module.

The Structured Finance module takes the project cash flow and creates a finance cash flow based on the ordered contributions, repayments, mortgages (single or multiple), and profit distribution of the funding sources.

Multiple user-defined finance structures may be created, each with its own self-contained setup of funding sources, funding structures, finance rates, finance fees, mortgage and profit distribution.

The Structured Finance module offers the following capabilities:

1. Creation of multiple sources of funds from:
   - Individual lender(s)
   - Individual equity participant(s)
   - Take out loans on an interest-only basis, reverting to capital and interest repayments on a specified date
2. Creation of multiple finance structures:
   - Separate finance settings for each phase, or group of phases
   - Separate mortgage(s) for each phase, or group of phases
   - Cash flow that combines all finance structures
3. Repayments of capital
   - Delay the repayment of capital and loans using the earliest repayment date
   - Repay capital and loans in full on a specific date
4. Mortgage takeout financing:
   - Take out any number of mortgages in each financing structure
   - Select the basis on which each mortgage can be calculated independently of any other
   - Selection of income stabilization date
   - Specify the tenants/properties used to finance the mortgage repayments
   - Calculates maximum mortgage available based on project income
   - Calculates debt service ratio
   - Calculates the mortgage based on a target debt service cover ratio (DSCR)
   - Calculates the annual income from the sum of net operating income over the first twelve months of the mortgage
   - Shortfalls in mortgage payments picked up by any finance source
   - Powerful waterfall profit distribution capabilities:
   - Preferred return calculations
   - Fixed amount distributions

- IRR look-back and promote interests
- Equity multiples
- Catch-up payments to general partner
- Percentage distributions
- "Clawback" mechanism to redistribute general partner's profit when the preferred return or other hurdle rate has not been met for the other equity investors
- Taxation of profit
- Performance measures

5. Creation of a Finance cash flow for each finance structure that shows contributions, repayments and profit participation for each Finance source, based upon the project cash flow and the finance structuring assumptions made in the Finance module.

6. Fine-tuning the cash requirements ("Contributions") and receipts ("Repayments") for each individual source of funds through the "Timed Contributions" and "Timed Repayment" features in the Finance Cash Flow. This feature allows you to time project contributions and repayments, in addition to the "Auto" generated Contributions and Repayments that are generated by ARGUS Developer, based on the project's costs and revenues.

7. The Finance cash flow has a Balancing Account that acts as an overdraft account if you specify contribution limits for debt or equity - this shows the amount of finance shortfall in the finance structure.

8. Balances between equity partners and loans can be transferred which allows inter-partner and inter-loan payments and repayments - for example, a construction loan can take over the balance of pre-development costs from an equity partner. Formerly called Timed Finance Events Transactions, these are now referred to as Inter-Source Transactions and are structured for easier setup and maintenance.

See Also
Inter-Source Transactions

The Structured Finance Module offers the following features:

1. It is an integral part of the software, so that changes to project cash flows and results are instantly reflected in all elements of the Finance calculations.

2. It provides an extremely fast way to model deal structures that include multiple equity sources, multiple loans during construction, and long-term (takeout) amortizing mortgages.

3. Each participant (whether an equity source of funds or a loan) in a finance structure has the following contribution elements that can be set by the user:

   - Order of Contribution;
   - Contribution as a percentage of Total Cost;
   - Fixed Contribution Amount;
   - Maximum Contribution Amount;
   - Timed Contribution amounts at specific dates.

4. Each Participant (whether an Equity source of Funds or a Loan) in a finance structure has the following repayment elements that can be set by the user:

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- Order of repayment;
- Timed repayment amounts at specific dates;
- For both equity and debt sources, timed repayments of profit at specific dates - this provides accurate simulation of preferred returns;
- Control over the first date at which Repayments of any kind (of original contributions or profit that is automatically calculated) are paid for any equity source.

5. A conventional amortizing mortgage loan can be set up for each finance structure. A mortgage can be defined with a variety of parameters for calculation of amount, interest compounding frequency, or amortization period. For more information see Mortgage Tab.

A sample file is included with the installation of ARGUS Developer. It shows how the various features of Structured Finance are applied and how the results are generated.

Assumptions Setup

If the Structured Finance module has not been enabled, select the **Finance Type** button from the Finance tab group on the ribbon, then select *Structured Finance* in the drop-down list.

Note: The *Basic (Interest Sets)* option is the traditional single-source financing module.

Finance Structures

Before you start to work with Finance Structures, think about how you want the different parts of your project to be financed. Next split those parts into different phases of development using the Time Scale and Phasing window. You will then be able to clearly identify, for example, which phases will be financed by which finance sources, at what rates of interest etc. Once you have identified which parts of the project will be financed by different funding sources, you can create a finance structure for each part, then add the funding detail.

The detail that you add to each structure can include separate sources of debt and equity financing, separate interest rates and loan fees, mortgages, and waterfall profit distributions. In this way, it is an easy task to finance the different buildings on a site with completely separate funding structures.

Individual Finance Structures may be added together to provide a combined view of all finance source cash flows and performance measures across the project. The result of the combination is a cash flow that shows each source's participation in the different finance structures. Each source's performance measures are also calculated from their combined cash flows to give an overall project return per source.

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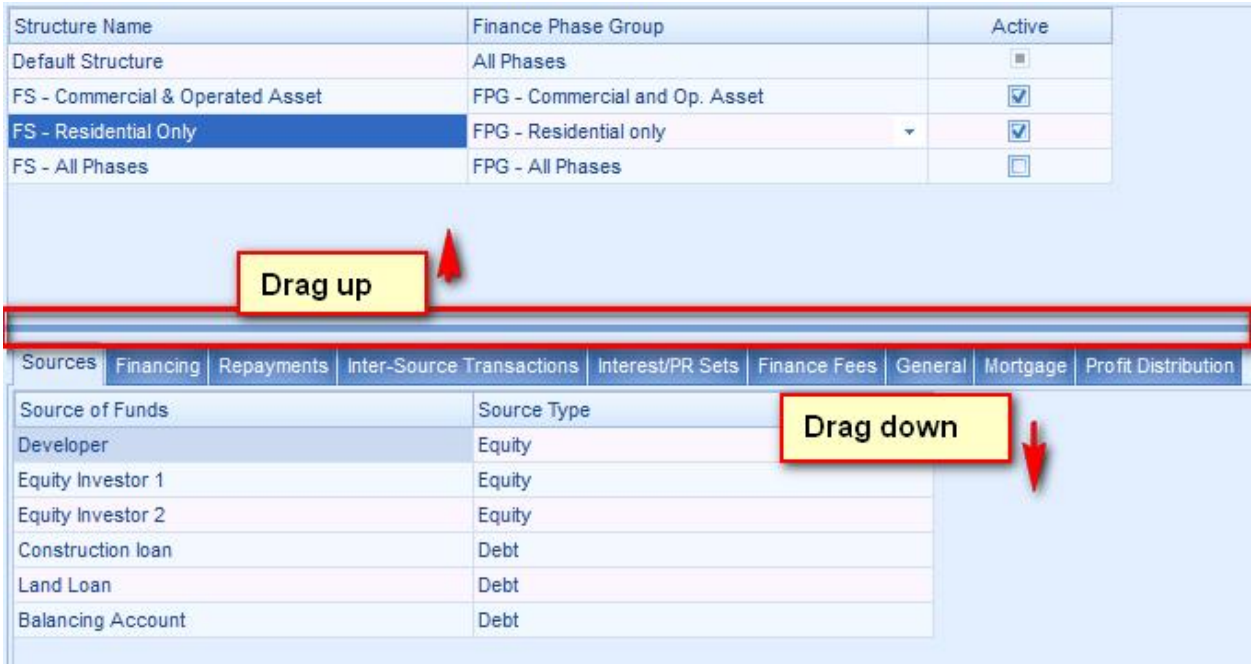
The Finance Structures Screen

The Structured Finance setup screen is divided into two areas. The top area of the screen is used to create the Finance Structure that will finance the relevant phase(s) of data. The bottom area of the screen is used to create and edit the detailed funding information for each of the finance structures. Adjust the height of each area by clicking on the resizing bar between the two areas and dragging the screen up or down.



The Finance Structures Table

When you open a file that was created prior to Version 5, you will see that there are already two structures listed in the table.

The first structure in the table holds the finance information created in the Finance Setup area in prior versions of Developer. The finance structure is called All Project Phases and the finance phase group that holds the list of all phases will be called All Phases.

The second finance structure is created automatically and named Default Finance Structure. It contains a default setup of all phases in the project. This structure can be used for simple financing where the project has a single phase or the same financing structure is to be used for all phases.

When you move between the different structures, either using the mouse, or the keyboard, the information in the lower part of the screen will update to reflect the settings held in the highlighted structure. The exception to this is the information on the Sources tab which is used in all finance structures.

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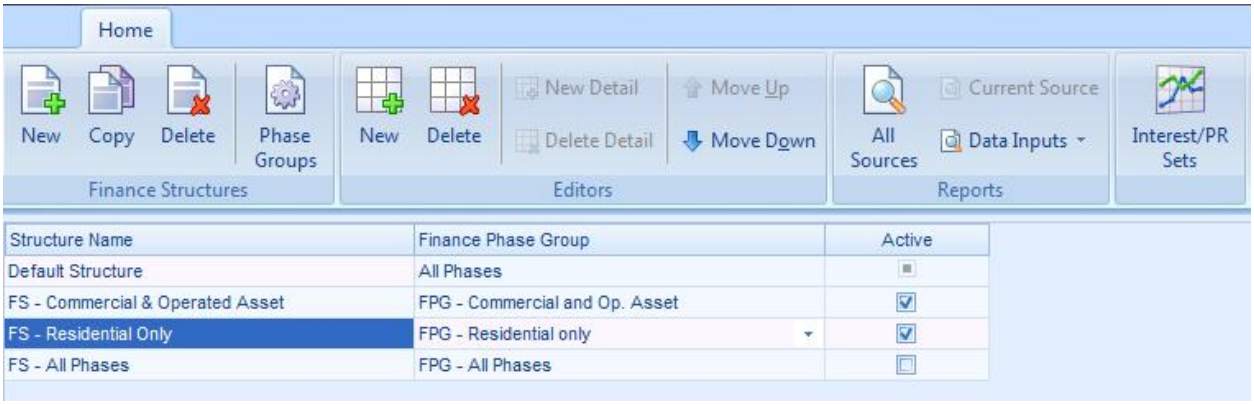

Structure Name
This is the name you will call each of the finance structures. It will be used to identify the structure when you are in the main application area and on reports.

Finance Phase Group
This is what you use to link phases of data to a finance structure. You can select a Finance Phase Group only once with the exception of the All Phases group. The All Phases group can be linked to multiple finance structures to enable scenario modelling where you can run different funding structure calculations against the entire project.

Active
To include a finance structure in the combined view of all active finance structures, select the **Active** option. Any finance structure in which the **Active** option is not selected will not be included in the combined view, although it will be listed in the phase group selector in the main application area.

Finance Phase Groups

Each finance structure can be used to finance one or more phases of data. To link phases to a finance structure, you will need to create Finance Phase Groups to hold the list of required phases.

Before adding new finance structures to the project, create the Finance Phase Groups that will be used for providing cash flow data to the finance calculations. Name each Finance Phase Group clearly so that it can be easily identified on other screens.

To create and maintain Finance Phase Groups, use the **Phase Groups** button on the Finance Structures ribbon.

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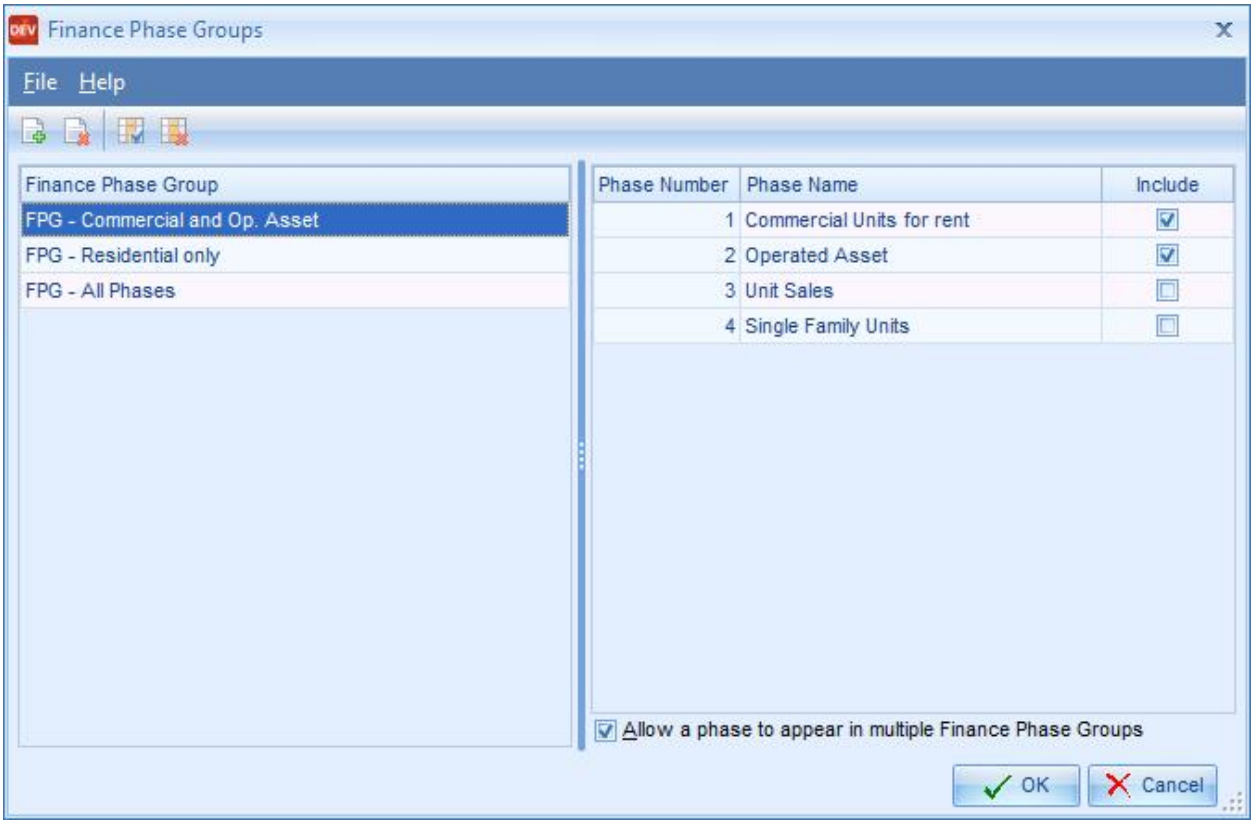

Allow a phase to appear in multiple Finance Phase Groups (bottom of screen)
Select this box to finance different combinations of phases when determining the highest and best use for a site. When this option is selected, a phase may be included in more than one Finance Phase Group. It will not be possible to view the All Active Structures combined cash flow view when the phase has been included in more than once finance structure. This is to prevent double-counting the phase.

If you select the All Active Structures phase group in the main application area when phases are included in more than one finance structure, a warning similar to that shown below will appear and the current phase group selection is maintained.

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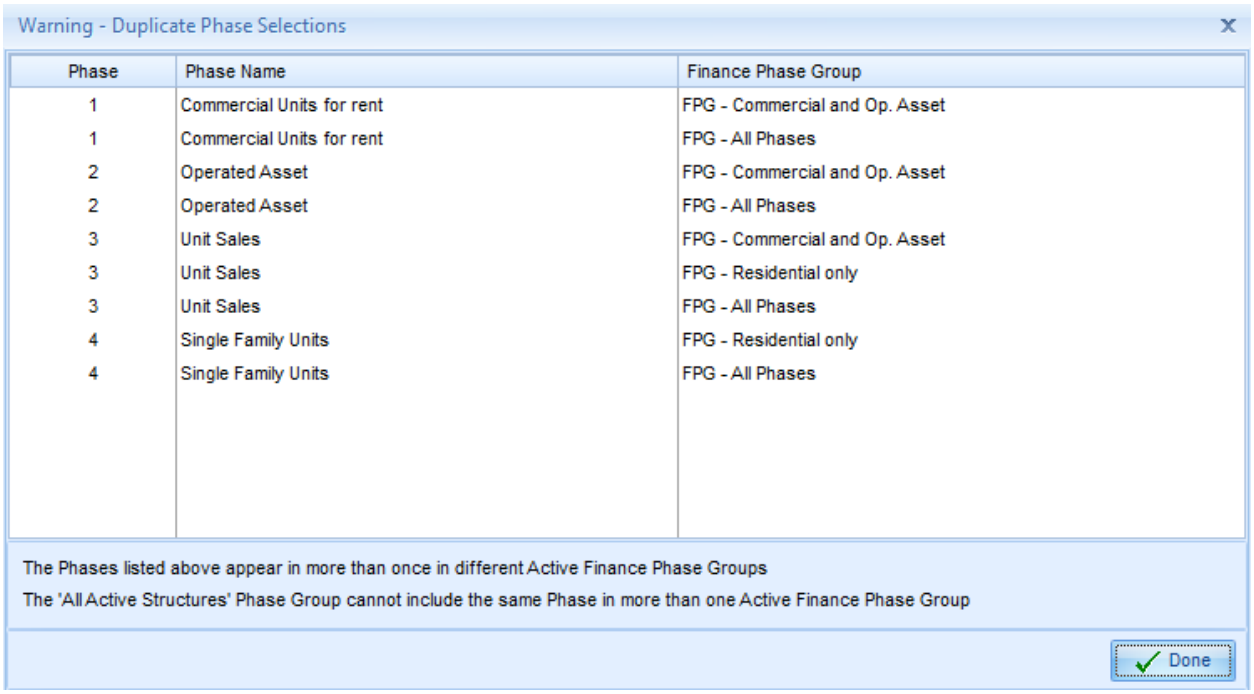
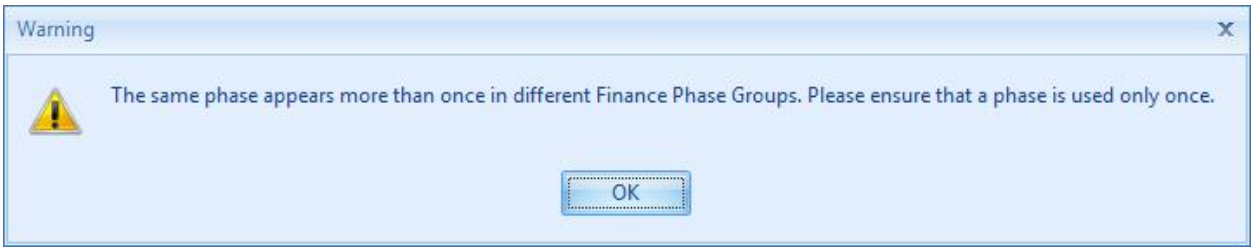


When the **Allow the same phase to appear in multiple Finance Phase Groups** option is not selected, a phase may be included only once in any Finance Phase Group that is being used by an active finance structure. If you attempt to include the phase twice, the selection will not be allowed and a warning will be shown.



Creating a Finance Structure

To create a new Finance Structure, click on the **New** button on the far left end of the ribbon in the Finance Structures group.

A finance structure will be created, automatically named and added to the Structures table. The Finance Phase Group is automatically set to (None) and the **Active** option is selected.

The new finance structure will have no other settings made - you must now enter the funding information into the appropriate tabs in the lower part of the screen.

When you close the Finance Setup window, you will see that Developer adds the Finance Phase Group / Finance Structure name to Phase Group selector in the bottom left of the main application area. By selecting this phase group, you will be able to see the results of the finance calculations for that finance structure.

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Deleting a Finance Structure

To delete a Finance Structure, highlight the structure and click on the **Delete** button near the left end of the ribbon in the Finance Structures group.

You will be asked to confirm whether you want to delete the structure. If you confirm this, the structure and all its data will be deleted from the table and from the Phase Group selector in the bottom left of the main application area.

The Finance Phase Group that was linked to the structure is now available to be linked to another structure, or its phases moved into other Finance Phase Groups.

Copying a Finance Structure

To copy a Finance Structure, highlight the structure you want to copy and click on the **Copy** button near the left end of the ribbon in the Finance Structures group.

The copy will contain all settings made in the source finance structure, with the exception of the Finance Phase Group and any date and timing information.

The Finance Phase Group will be set to (None) to prevent any double-counting of the phase data in a combined cash flow view.

Because each finance structure must work with a unique Finance Phase Group, and the copy has automatically set the Finance Phase Group to (None), any date and timing fields that depend on specific phase numbers must be reset to link to the project start date. This means that the timings of the following settings may change:

- Earliest Contribution Date
- Earliest Repayment Date
- Fixed Repayment Date
- Interest-only Repayment End Date
- Inter-source Transaction Date
- Stabilized Income Month for Ratio Analysis
- Earliest Capital/Earliest Profit Distribution Month
- Month to place Mortgage
- Month to start amortization
- Month to repay mortgage
- Clawback month
- Finance fee start date
- Finance fee end date

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Any Unit Sales Repayment settings will also change because they are linked to the units within the phases inside the original Finance Phase Group. Any rates that have been entered will be set to zero.

Sources Tab

On this page, you can create any number of sources to participate in a Finance definition. Within the context of ARGUS Developer, sources include:

Equity Sources

Provide funds to the project and typically participate in profit distribution. Equity sources often have various preferred return profit distribution options.

Equity GP Sources

Manage the investment activity and typically will receive a management fee. In addition, may contribute funds and participate in profit distribution.

Debt Sources

Provide funds to the project in the form of interest bearing loans. Typically, these are repaid with the return of loan principal and accrued interest, but they can also participate in profits.

Balancing Account

This is a default source which is always part of a finance definition. The balancing account is used to provide money to a project when all the money from other sources is spent. The balancing account is also the holder of any undistributed profit during the project.

Note: The sources of financing entered here are available to all finance structures set up within the project.

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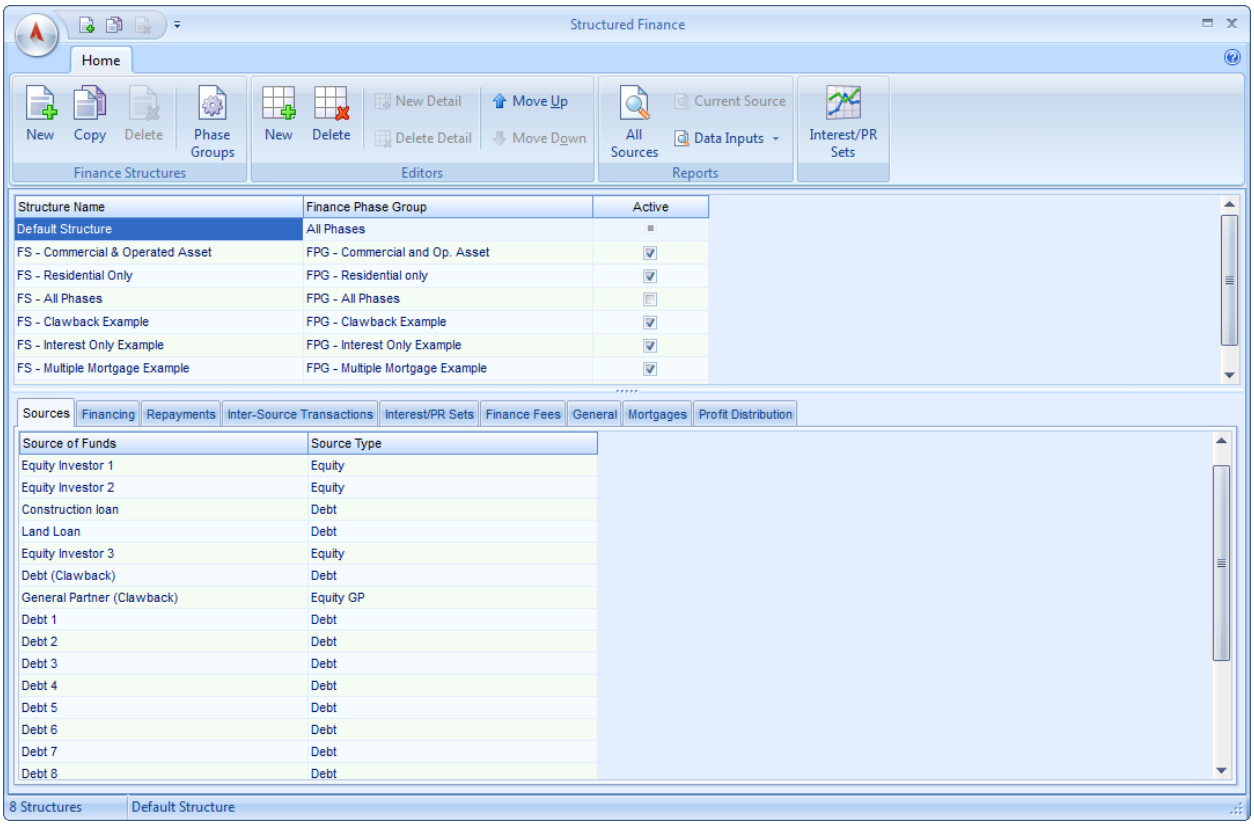

When you enter sources of funds, you only need to set up each source once even if the source has multiple contributions or levels of profit participation. The ribbon includes the following buttons that are relevant to the Sources tab:

- **New:** Click the **New** button in the Editors group to add a new source which can then be named. For each source, select the type (Equity, Equity GP, or Debt) with the drop-down selector. This type selection is used to separate interest paid to equity and debt on the Summary.
- **Delete:** Click the **Delete** button in the Editors group to delete the currently highlighted source. You are requested to confirm this action before proceeding.
- **Move Up/Move Down:** Click the **Move Up** and **Move Down** buttons to re-order sources in the list.

Financing Tab

The individual columns in the screen below are grouped into three main sections, left to right:

- Sources
- Contributions
- Finance Costs

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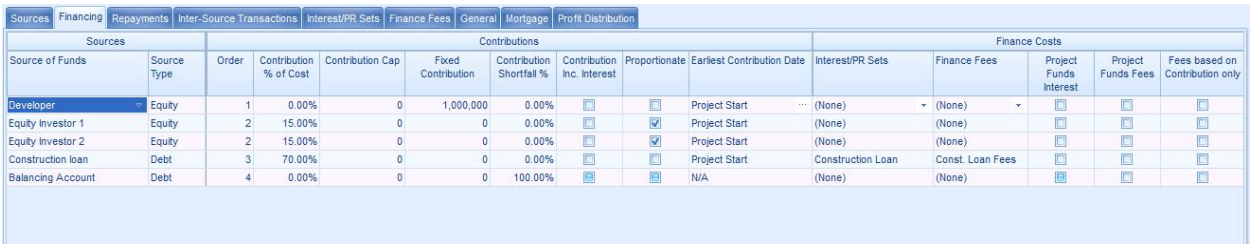

Sources

Heading	Type	Description
Source of Funds	Text: drop-down selector	Available choices are from the Sources tab, as explained above. This identifies the source on screens and reports. Note that the Balancing Account is always entered for you and cannot be removed; it is a necessary part of the analysis and always appears on the last line. Each source listed in the Sources tab can be referred to more than once in the Financing and Profit Distribution tabs, depending upon the Contribution, Repayment and Profit allocations of your current project. Each line in this column must have a source attached.
Source Type	Text	This is the source type— either Debt, Equity, or Equity GP, as defined on the Sources tab.

Contributions

Heading	Type	Description
Order	Integer	The order in which each source contributes to the project. A Contribution Order can be shared between any number of finance sources. Individual finance sources can be referenced repeatedly in this list, each with a different contribution order, as required. This allows multiple sources to be in the same order, for example, the first 20% of project costs can be funded by two equity sources, and the remaining 80% by a construction loan. Another term for contribution order is "Tranche." The Balancing Account is always the highest (largest) number — always the last source to contribute. It will

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		only contribute when the project is under-financed - in other words, there are more costs in the project cash flow than financing sources contributions defined. This is an error condition that you must correct. The actual timing of contributions is triggered by the project's need for funds, the contribution order of the current finance source line, and is further subject to any timed contributions entries that can be entered in the main Finance Cash Flow view that appears for each finance source.
Contribution % of Cost	Direct entry as percentage	The amount to be contributed expressed as a percentage of total development costs, including Land. If other finance sources have the same contribution order, the actual amount contributed in any month will be split evenly between sources unless the **Proportionate** switch is selected, in which case the Proportion is relative to the % each source is contributing within the current contribution order. You cannot exceed 100% in a Contribution Order.
Contribution Cap	Amount	If entered, this is the maximum that a source will contribute when Contribution % of Cost is entered.
Fixed Contribution	Amount	The amount the source will contribute in monetary terms. If entered, cancels any % Contribution and Contribution Cap amounts.
Contribution Shortfall %	Direct entry as percentage	This field provides a way to identify which sources will fund shortfalls in contribution or mortgage repayments as the project proceeds. See Contribution Shortfall % for further explanation of this field.
Contribution includes interest	Select on or off	If **not** selected, this option adds the interest to the contributions without testing to see if the total amount being contributed exceeds the user-specified amount or percentage of cost. This is the default setting. If **On**, it includes the interest payable on the loan in the total amount contributed by the current row's finance source. It has the effect of reducing the

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		current finance source's total amount contributed to the project by the amount of interest payable on the loan.
Proportionate	Select on or off	If **On**, determines the contributions for all finance sources in the current order to be in proportion to one another, based upon the Contribution % of Cost item above. If **Off**, the amount contributed in any month for finance sources in this order will be split evenly between the sources, irrespective of their % contributions. Another term for proportionate contributions is *Pari Passu*.
Earliest Contribution Date	Selection with timing window	Specifies the earliest date of contribution to be made by the source. Click the ellipsis button to delay the start of contributions. **Note:** If you delay the start of contribution by a source, and other sources have already fully contributed, the balancing account will have to pick up the shortfall. If you delay the start of contributions by a source that is not the highest-ordered source for contributions, the program will look to the other higher-ordered sources for the contribution.

Earliest Contribution Date

To delay the date upon which a source makes contributions, click on the **Earliest Contribution Date** button.

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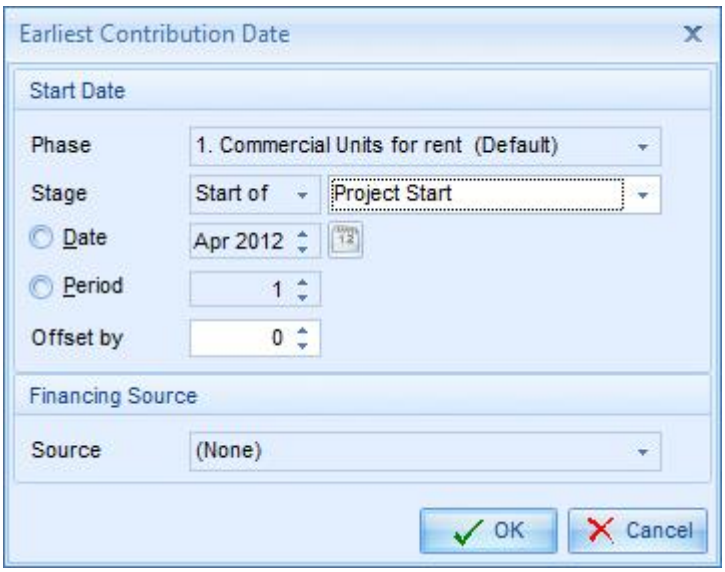

In addition, you may choose to link the earliest contribution date to another source's Loan Repayment Date. Choose **Loan Repayment** option in the drop-down list of the **Stage** field and then select the name of the source in the drop-down list in the **Source** field in the Financing Source section.

Contribution Shortfall %

Where there are Contribution Caps or Fixed Contributions entered, a shortfall may result.

The **Contribution Shortfall %** field provides a way to identify which sources will fund shortfalls in contributions or mortgage repayments as the project proceeds.

A contribution shortfall will be funded in whole or in part by sources that are identified as being contributors to a shortfall, which could occur at any point in a project. Shortfalls will be funded in the percentage amount for each source identified as being a contributor, irrespective of their order of contribution - in other words, a source could commence funding prior to the time it would have otherwise, had it not been a shortfall contributor.

It is not necessary to enter a total of 100% (or any % for that matter) in the **Contribution Shortfall %** column. Thus, if a shortfall is not 100% funded, the balance will fall to the Balancing Account.

Note: You are not permitted to provide in excess of 100% Shortfall Funding.

Shortfalls are added, with interest if specified for the source, to the balance of the source and will be repaid in the Order of Repayment along with Auto and Manual Contributions, without discriminating among the type of contributions.

You may find it is easier to add a new contribution row to handle shortfalls. In this way, you can see the amount of the shortfall in a separate cash flow, together with any interest and repayments. You also have the advantage of being able to manually time any repayments on the shortfall. The shortfall cash flow will be consolidated along with

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the other cash flows for the same source when you choose a consolidated view on the Cash Flow tab.

Example: An example use of this functionality is to provide for adequate funding of a project where sources with the highest orders of contributions have the **Contribution Inc. Interest** switch on. Unless other settings are made to provide for full funding (for example, the "Add Interest to Project" and/or "Add Fees to Project" switches), this can and typically does result in a balancing account contribution that may or may not be fully repaid prior to the end of the project.

Finance Costs

Heading	Type	Description
Interest/PR Sets	Text: drop-down selector with content from the Interest/PR Sets tab	Selects a user defined rate structure (defined in the Interest/PR Sets tab in this area) that includes the interest rate(s), and compounding frequency. **Note:** If interest is applied to a source, the interest amount is a cost to the project, reducing the project's profitability. Preferred Returns (PR) are a distribution of profit that are calculated in the same manner as interest but are taken from the available profit.
Finance Fee	Text: drop-down selector with content from the Finance Fees tab	Selects a user defined Finance Fee definition (defined in the Finance Fees tab) that includes fees and points for each loan.
Project Funds Interest	Select on or off	If checked On, the interest for the current source will be added to the Project Cost exclusive of financing charges, for the purpose of calculating funding requirements. This interest is not included or compounded in the source balance month to month. If left off (the default setting) the interest charge is made and compounded against the source but is not included as a project cost for calculating funding requirements when percentage based contributions are entered.
Project Funds Fees	Select on or off	If checked On, the fees for the current source will be added to the Project Cost for the purpose of calculating funding requirements. This control works in a similar manner to "Add Interest to Project".

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Fees based on Contribution only	Select on or off	Only enabled if a Finance Fee has been selected. Forced to On if **Add Interest to Project** is on, otherwise selectable. If On, the fee is based on the source's contribution amount only. However, if the Add Interest/Add Fees switches are turned on, the contribution amount will include an interest and/or fee component. If Off, the fee is based on the source's contribution including interest.

Repayments Tab

The individual columns in the screen below are grouped into three main sections, left to right:

- Sources
- Repayments
- Interest Repayments

Sources			Repayments										Interest Repayments				
Source of Funds	Source Type	Contribution Order	Order	Manually Time Repayments	Earliest Repayment Date	Fixed Repayment Date	Repayment Source	Unit Sales Selection	Unlimited Repayment	Proportionate	% of Funds Available	Repay Interest Only	Include Fees	Repayment Source	Repayment %	Repayment End Timing
Land Loan	Debt	1	4	☑	Phase 1: Phase Start	(None)	Available Cash	N/A		☑	0.00%	☐		(None)	100.00%	Project End
Equity Investor 1	Equity	2	3	☐	Phase 2: Phase Start	(None)	Available Cash	N/A		☑	0.00%			(None)	100.00%	Project End
Developer	Equity	2	3	☐	Phase 2: Phase Start	(None)	Available Cash	N/A		☑	0.00%			(None)	100.00%	Project End
Construction loan	Debt	3	2	☐	Phase 1: Phase Start	(None)	Available Cash	N/A		☐	100.00%			(None)	100.00%	Project End
Balancing Account	Debt	4	1		Phase 1: Phase Start	(None)	Available Cash	N/A			0.00%			(None)	100.00%	Project End

This component of the Structured Finance module allows you to define any number of repayment regimes that can be applied individually to sources.

Repayments use cash sources in the following order:

1. Cash Available – any surplus cash that has not yet been allocated to any other source – may use either a proportion of cash, or the percentage of funds available entered on the Repayments tab.

2. Reserve Account – when the balance of the reserve account is greater than zero, the program can use either a proportion of cash, or the percentage of funds available entered on the Repayments tab.

3. Balancing Account – when other cash sources are not sufficient to repay the balance, the balancing account shall fund the shortfall.

Note: Repayments for each source line must have either (a) % of Funds Available or, (b) Proportionate Repayment box checked.

The items included for definition are as follows:

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Sources

Heading	Type	Description
Source of Funds	Text	This identifies the source on screens & reports. **Note** that the Balancing Account is always entered for you and cannot be removed - it is a necessary part of the analysis and always appears on the last line. Each source listed in the Sources tab can be referred to more than once in the Financing and Profit Distribution tabs, depending upon the contribution, repayment and profit allocations of your current project. Each line in this column must have a source attached.
Source Type	Text	This is the source type - either debt, equity, or equity GP, as defined in the Sources tab.
Contribution Order		This read-only field shows the contribution order that has been set on the Financing tab.

Repayments

Heading	Type	Description
Order	Integer: does not have to be unique	Repayment within the context of the Finance module refers to repayment of contributions and Interest. It does not include profit or preferred returns, which are dealt with separately in the Profit Distribution tab. The balancing account is always the lowest numbered order and it will be repaid before any other sources.
Manually Time Repayments	Select on or off	When this is on, no Auto Repayments are made for the current Source row - all Repayments must be done manually. The earliest and fixed repayment dates have no effect.
Earliest Repayment Date	Selection with timing window	Specifies the earliest date upon which the repayment of the capital or loan can start. Click the **Ellipsis** button to delay the start of repayments. The date selected can be earlier than the date of the first capital contribution. The default date is *Project Start*.

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Fixed Repayment Date	Selection with timing window	If (None), repayments of capital or loans take place according to the order and availability of cash. If any date other than (None), specifies the date upon which the full repayment of the capital or loan will occur. Click the **Ellipsis** button to bring forward the repayment date. The date selected can be earlier than the first capital contribution. The default date is *None*.
Repayment Source	Text: drop-down selector	This identifies the source of cash for repayments of capital and interest. If *Available Cash* is selected, the program will use all available receipts in the project to repay the loan. If either the *Rate/Sale Unit* or *% of Sale Value* option is selected, the program will use a proportion of receipts for unit sales to repay the loan. **Note:** The *Rate/Sale Unit* or % of *Sale Value* selections have their parameters set in the next entry.
Unit Sales Selection		A read-only field that displays the current number of unit sales items selected for repayment, based on up to three tiers of rate and units, and in the case of rate per unit, a growth set. A zero entry for Up to (Units) means that the rate selected will be applied until the source is fully repaid. The Up to (Units) entry is cumulative, not additive.
Unlimited Repayment	Select on or off	This option is available when either of *Rate/Sale Unit* or *% of Sale Value* are selected. When On, the proportion of receipts from unit sales will continue to be paid, as profit, to the source after the loan has been repaid. If Off, the repayments will end when the loan has been fully repaid. **Note:** Selecting this box On should be used with caution, as it can potentially repay a lender (in the form of Profit) much more than just capital, interest, and fees.
Proportionate	Select on or off	If On, the Repayment (Contributions and Interest only) for all finance sources in the current order to be in proportion to the contribution percentage cost item in the Contributions category. If Off, the actual amount of repayment in any month for finance sources in this same order will be paid out evenly between sources, irrespective of their percentage contributions.
% of Funds Available	% value	Enter the % of positive cash flows (if any) available each month to repay this source's contributions and interest.

Capital Repayment Calculations - Earliest Repayment Date

A. The existing date property for earliest equity capital/profit distribution month shall no longer apply to the repayment calculations on the General tab.

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B. In each repayment period, the program shall test the earliest repayment date specified for each debt or equity or general partner finance source.

   a. If the current repayment period is earlier than the earliest repayment date, no automatic repayments of capital, interest, or fees shall occur.

   b. If the current repayment period is on or after the earliest repayment date, automatic repayments of capital, interest, and fees may occur, subject to sufficient cash being available.

C. Manually timed repayments may occur if the current repayment period is earlier than the earliest repayment date.

D. Inter-Source Transactions, both fixed and percentage, may occur if the current repayment period is earlier than the earliest repayment date.

E. An outstanding balance repayment may occur if the payment is made before the earliest repayment date.

Capital Repayment Calculations -- Fixed Payment Date

A. The capital balance repayment calculation is enabled only when the selection in the timing editor is NOT *None*.

B. The capital balance includes:

   a. Contributions – automatic, timed, Inter-Source transactions

   b. Repayments – automatic, timed, Inter-Source transactions

   c. Interest – interest cost, interest repayment – from named source, or project

   d. Fees

C. Balance Repayment Calculations

   a. In each period, timed repayments take place before capital balance repayments.

   b. In each repayment period, the program shall test the Fixed Repayment Date for each source.

   i. If the current period equals the Fixed Repayment Date, the program shall calculate the outstanding balance and repay it in full.

Interest Repayments

Heading	Type	Description
Repay Interest Only	Select on or off	If On, the source's interest charges are automatically paid by the repayment source as they occur. If Off, the source's interest charges are repaid according to its Repayments Category terms.

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Include Fees	Select on or off	If On, any fees associated with the source that was being repaid will be included with the Interest. If Off, the fees will not be included.
Repayment Source	Text: drop-down selector	The selected source in this field pays the source of funds interest if the *Repay Interest Only* option is On.
Repayment %	% value	Defines what percentage of the interest is repaid when the *Repay Interest Only* option is On.
Repayment End Timing	Select from a drop-down list	This controls when the repayment source stops paying the source of funds interest when the *Repay Interest Only* option is On. When active, this control opens a timing window.

Unit Sales Selection

You can select either the *Rate/Sale Unit* or *% of Sales Value* option from the **Repayment Source** field on the Repayments tab. To display the Unit Sales Selection window, click the ellipsis in the **Unit Sales Selection** field.

You can define up to three tiers of rate and units and an escalation (Rate/Sale Unit)/Growth Set (% of Sales Value) for the current number of unit sales items selected for repayment.

A zero entry in the **Up to (Units)** field means that selected rate will be applied until the source is fully repaid.

Note: The entry in the **Up to (Units)** field is cumulative, not additive.

Use the drop-down list in the **Scope** field to make settings for all units (Apply to all sales areas), or to specific sales areas (Apply to selected sales areas).

Unit Sales Selection on a Rate/Sale Unit and Scope of “Apply to selected sales areas” basis:

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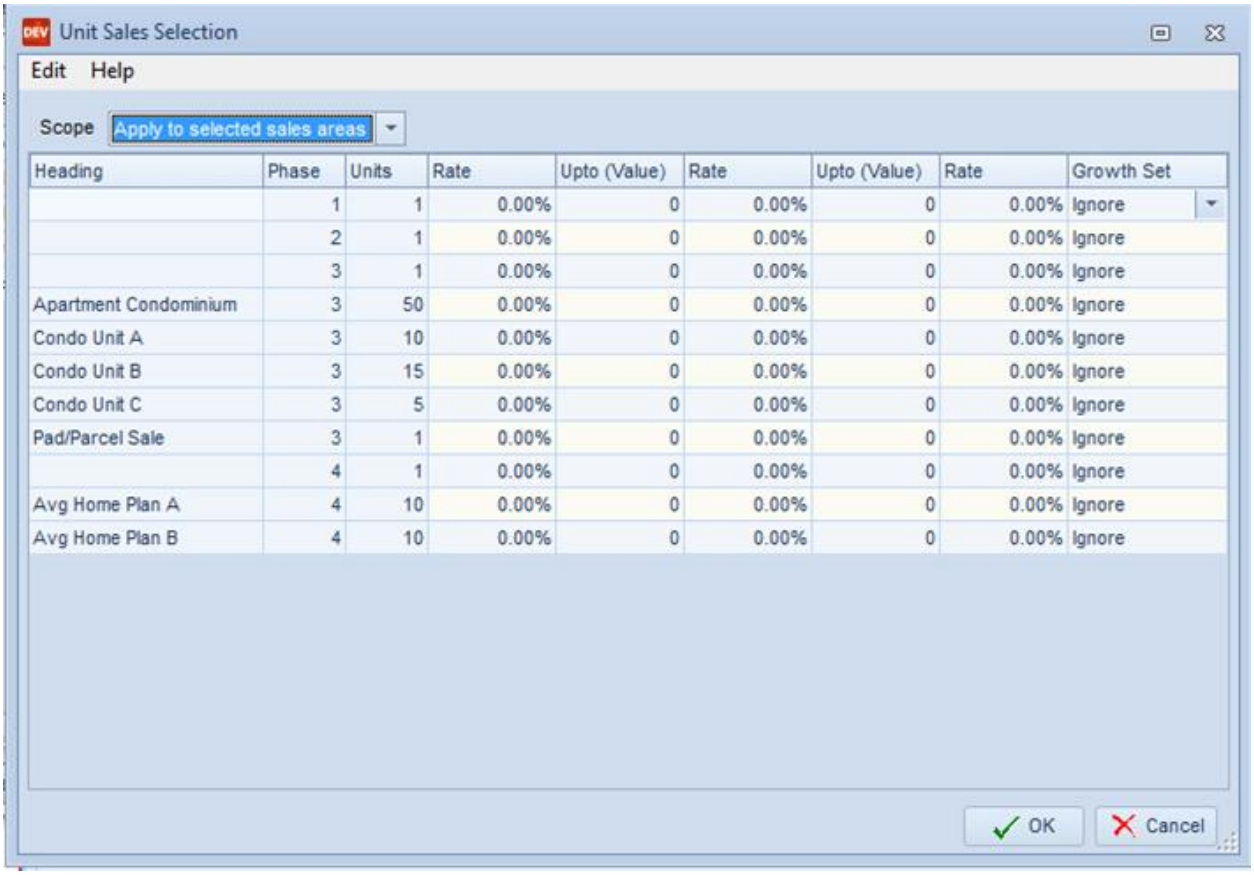
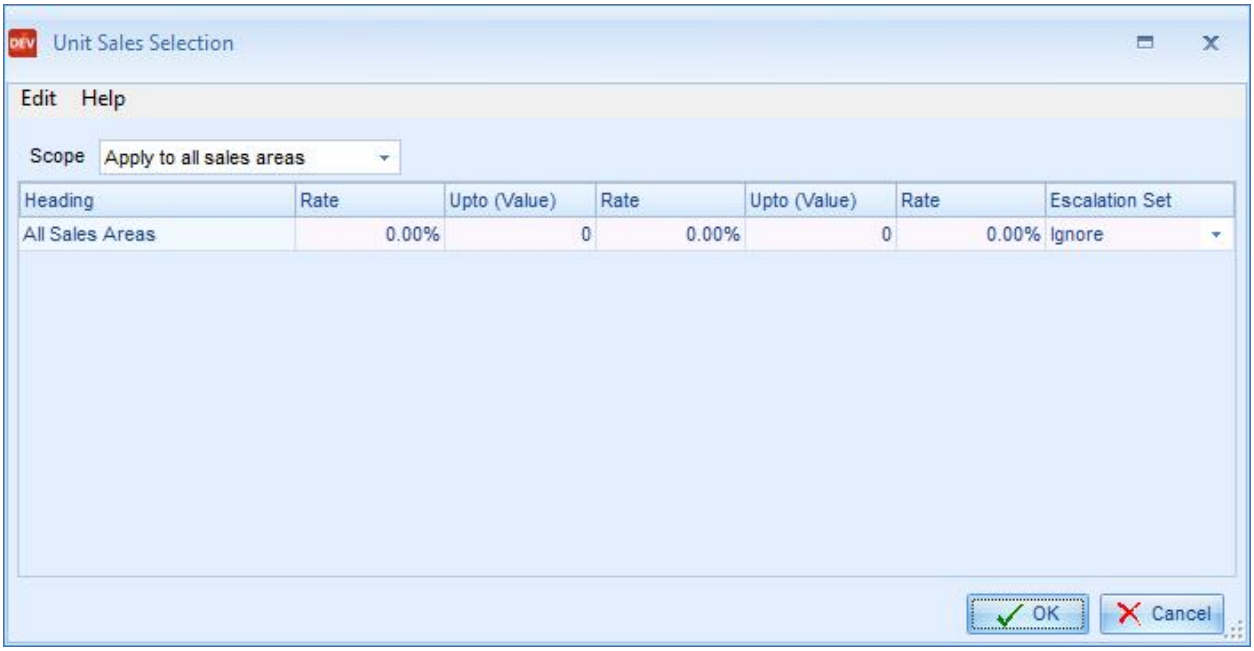


Unit Sales Selection on a % of Sales Area basis and Scope of “Apply to all sales areas”:



This window allows you to define up to three tiers of rate and units for the current number of unit sales items selected for repayment.

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A zero entry for Up to (Value) means that the rate selected will be applied until the source is fully repaid.

Use the options in the drop-down list of the **Scope** field to make settings for all units ("Apply to all sales areas") or to specific sales areas ("Apply to selected sales areas").

Inter-Source Transactions Tab

This component of the Finance module allows you to link finance sources in order to transfer money between them. Here you set up a table that specifies which source is repaying another source, what type of transaction, on which date the transaction will occur and the amount (as a monetary value or percentage). You can also elect to switch off any further contributions from the receiving source once the transaction has been completed.

Two types of transaction are available - a fixed amount and a percentage of outstanding balance. The fixed amount transaction will simply transfer a fixed sum between the sources. The percentage of outstanding balance transaction will assess the receiving source's balance of contributions, interest, loan fees and repayments, and make a transfer equal to this amount. If the balance is zero or a positive amount, no transfer will take place.

The timing of the payments is controlled by selection of stages of development, and the use of other timing triggers such as loan start dates, in addition to fixed dates or periods.

Heading	Type	Description
Contributing Source	Select from a drop-down list	This allows you to identify the source from which funds will be transferred.
Receiving Source	Select from a drop-down list	This allows you to identify the source that will receive the transferred funds from the contributing source.
Transaction Type	Select from a drop-down list	This allows you to specify whether the amount to be transferred will be a fixed monetary amount, or a percentage of the receiving source's outstanding balance.
Amount	Percentage value or	This field allows you to type in a fixed monetary amount or a percentage, defining the amount of the transaction.

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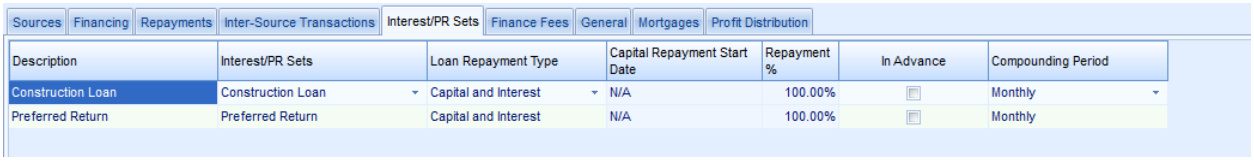
	monetary amount	
Transaction Date	Selection from a timing window	This timing control allows you to specify when the transaction takes place. This opens a timing window.
Terminate Contributions for Receiving Source	Select box	If On, the receiving source that has been repaid will cease contributing to a project. **Note:** If the receiving source is also contributing to any cash shortfall, this option, if selected, will have no effect. This is because cash shortfalls may occur at any time and must be serviced by the shortfall sources. If Off, the receiving source may still contribute to the project if they have not yet fulfilled their full contribution amount.
Exclude Contribution from Percentage Fee Calculation	Select box	If On, any % Fee Calculations for this source will be applied to this Inter-Source Contribution. If Off, this Inter-Source Contribution line will not be included in % Fee calculations.

Interest/PR Sets Tab

This component of the Structured Finance module allows you to define any number of interest rate or preferred return regimes that can be applied individually to sources - whether debt or equity.



The following table lists definitions for the included items.

Heading	Type	Description
Description	Text	The label that refers to the definition - examples: Some bank Loan, or Lead Investor Preferred Return.

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Interest/PR Sets	Text — drop-down list with content from Interest/PR Sets form	Selects the Interest rates (can change over time) that this item will apply. See below for an explanation of the Interest/PR Sets setup screen.
Loan Repayment Type	Text: drop-down list	This allows you to select a Loan Repayment that is *Capital and Interest (default)* or *Interest Only*. See Features of Interest Only loan.
Capital Repayment Start Date	Selection from a Timing window	Select the date on which the repayment of capital starts. The default date is *Project Start*. This field is disabled when the Loan Repayment Type = *Capital and Interest*.
Repayment %	% value	The percentage (range 0.00% to 100.00%) of the interest cost that is repaid in each period.
Nominal Rates	Select box	If On, nominal rates are used. If Off, effective rates are used. **Note:** this field is only available in the EU region.
In Advance	Select box	If On, charges interest in the month it is funded. If Off, first charges interest in the month following the funding.
Compounding Period	Select from a drop-down list	Choices include *Monthly*, *Quarterly*, *Semi-annually*, *Annually* or *None* (no compounding period, i.e., simple interest).

Features of the Interest only loan

1. The interest is calculated on the loan's current balance.
2. The interest only part of the loan is assumed to start at the initial funding date of the loan.
3. The interest is assumed to be repaid automatically by the project in the period in which it is charged.
4. The interest amount will remain the same in each month. It will only change when another draw down of capital takes place, or if a capital repayment is made via a timed repayment or inter-source transaction or if the interest rate definition changes.
5. The interest only repayments continue until the period prior to the capital repayment start date. From this date forwards, capital, and interest are repaid.

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6. If the capital repayment start date coincides with the final period in the finance cash flow, an interest only repayment will not be made. Capital and interest will be repaid.

Features of the Capital and Interest Repayment loan

1. Capital and interest are repaid from the initial funding date from cash available, timed repayments, or inter-source transactions.

Loan Calculations

A. When an interest only loan is selected, the interest will be paid from the project in the following order:

1. From a timed repayment manually entered in the cash flow.
2. From cash available before other funding sources are repaid.
3. From the reserve account, after other sources have been repaid, if there is not sufficient cash available to cover the interest cost.
4. From the balancing account, after the reserve account has been drawn upon, if there is not sufficient cash in the reserve account to cover the interest cost

B. When the **Manually Timed Repayments** option is checked for a source:

1. No automatic interest or capital repayments will be made to that source during the entire period of the cash flow.

C. Timed Repayments during the Interest Only period

1. Any timed repayments entered into a funding source cash flow before the end of the interest only period will be used to repay the outstanding interest balance.
2. Any surplus remaining after the interest repayment will be used to repay the capital balance.
3. If there is a surplus after the repayment of capital, an entry flagged as an error will be added to the Data Selector to alert the user.

D. Inter-Source Transactions

1. Fixed amount repayments made through an inter-source transaction before the end of the interest only period shall be used to repay the outstanding capital and interest balance.
2. Repayments of interest from fixed amount transactions shall be processed before the calculation and repayment of interest from percentage of outstanding balance transactions.
3. Percentage of outstanding balance repayments made through an inter-source transaction before the end of the interest only period shall be used to repay the outstanding capital and interest balance.

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4. Repayments of interest from the percentage of outstanding balance transactions must follow the calculation of the transaction amount – either before automatic repayments or after automatic repayments.

5. Any surplus remaining after the interest repayment from either transaction type shall be used to repay the outstanding capital balance.

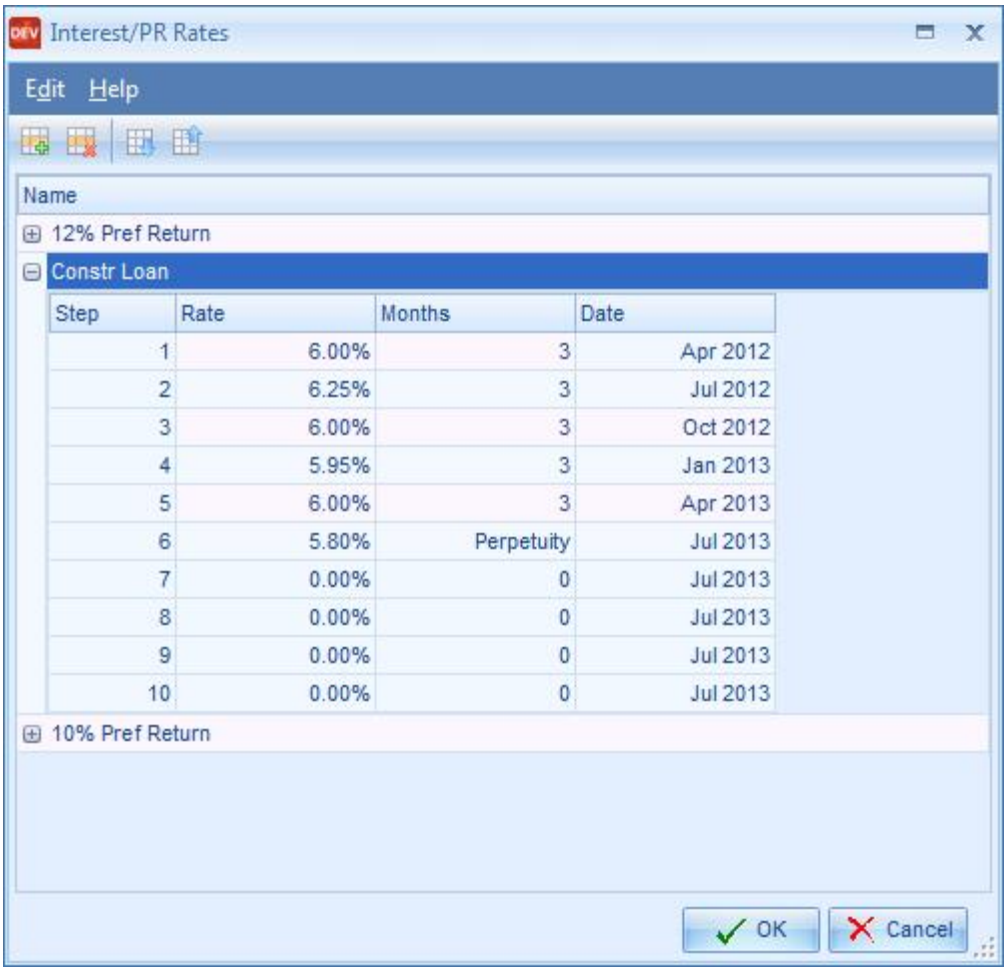
6. If there is a surplus after the repayment of capital, an entry flagged as an error will be added to the data selector to alert the user.

E. **Repay Balance** Command

1. The **Repay Balance** command in the Structured Finance Cash Flow screen will continue to repay the outstanding capital and interest balance.

Interest Sets Definition

To open the screen to set up interest rates, click on the **Interest / PR Sets** button in the Finance Setup ribbon.



This screen is also part of the main Assumptions for Calculation window that is accessible in the home ribbon of ARGUS Developer, by selecting the **Assumptions** button. You can make entries from either point of access.

See Also

Interest Sets Tab

You can define any number of rate regimes that can vary over time by using the Add icon and re-labelling the interest set name for each definition item. You can vary interest rates over time by specifying the rate and the number of months that each rate applies.

Click the **Remove Finance Rate** option to remove an interest rates set.

Finance Fees

This component of the Structured Finance module allows you to define any number of financing fees that can be applied to source contributions on the Financing tab of the module.

The items included for definition for each Fee Set Name are as follows:

Standard Fees Category

Heading	Type	Description
Fee Set Name	Text - direct input by user	The label that refers to the definition - examples: National Bank Loan Fee, or Lead Investor Fees.
Heading	Text as shown above	Each item defined in the **Fee Set Name** field above is set up by default to be a choice of two fixed amount fees and two related fees. However, the fee type for each line can be changed if, for example, three related fees were required.
Fee Type	Select from a drop-down list	Allows the selection of a categorization type for the fee (can be an entered amount or related to the loan amount). Choices are *Fixed* and *Related*.
Fee Basis	Select from a drop-down list	Only applies to Related Fee items. Choices are: 1) Drawn Amount (the actual calculated amount of the loan plus interest), or

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		2) Fixed Loan Amount (manually entered in the next column to the right). 3) Undrawn Amount (where the loan amount is not used - calculates an amount even when there are no draws on a loan). This option is only available if you have the Show Undrawn Loan Fees option checked in the System Administration settings - see General System Configuration. 4) Fixed Undrawn Amount (manually entered in the next column to the right)
Fixed Amount	Amount	Only applies to Fixed Amount items.
% Amount	Percent input	Only applies to Related Fee items.
% p.a. Amount	Percent input	Only applies to Related Fee items. This field can be made editable by checking the **Enable Annual % Finance Fees** option in the System Configuration window. See General System Configuration.
Fixed Loan Amount	Amount	Only applies if **Fee Type** selection is set to *Related Fee*. A manually entered amount on which the fee may be calculated.
Charging Period	Select from a drop-down list	The default is *Single*. Other options are *Monthly*, *Quarterly*, *Semi-Annually*, or *Annually*.
Start Date	Specify with a timing window	Allows you to specify a start date for the finance fee.
End Date	Specify with a timing window	Allows you to specify an end date for the finance fee.

Undrawn Fees Category

These options only become visible if you check the **Show Undrawn Loan Fees** option in the System Configuration window.

See Also

General System Configuration

Heading	Type	Description

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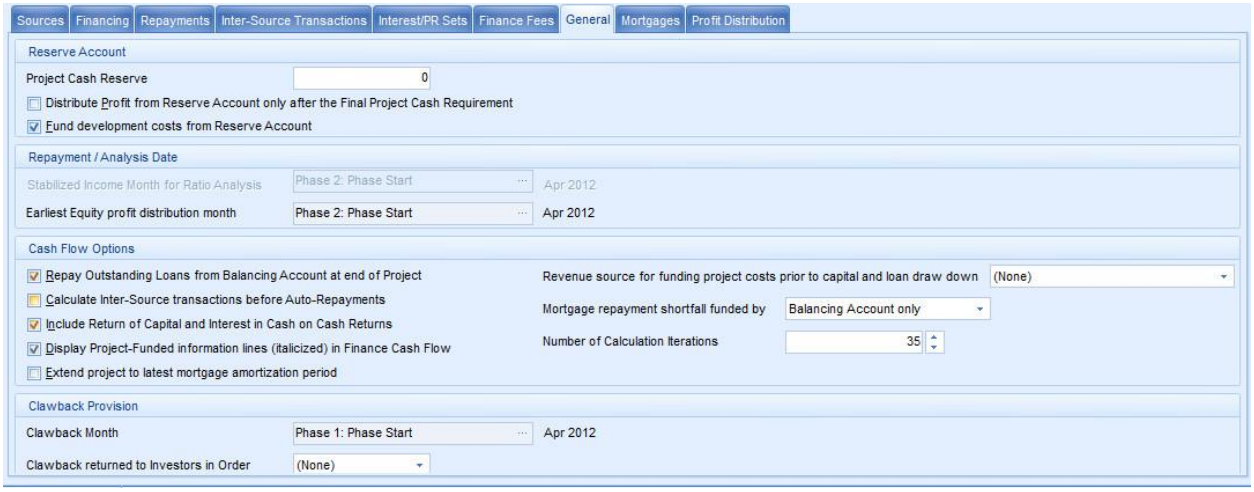
In Advance	Select box	Allows you to specify whether any undrawn fees will be charged in arrears (if the box is not checked) or in advance (if the box is checked). Whether any charge will be made is determined by the setting you make in the **Charge if Undrawn** option. Becomes available if the *Undrawn Amount* option is selected in the drop-down list of the **Fee Basis** field.
Charge if Undrawn	Select box	Allows you to specify whether or not there is a charge if the loan is undrawn. Becomes available if the *Undrawn Amount* option is selected in the drop-down list in the **Fee Basis** field.

General Tab

The General tab allows you to specify a variety of parameters (split into four sections) as shown below:



Reserve Account

Project Cash Reserve

The Project Cash Reserve is an amount held back from receipts for payment of any substantial costs that occur after income from leases starts to flow or sales come on line. The Project Cash Reserve is funded from Project Receipts, after debt and equity sources have been repaid.

Reserve account rules The reserve account serves the following purposes:

1. A reserve for cash in the early stages of the project where equity contributions are manually timed at the start of a project rather than automatically drawn when the cash is required. The reserve account works in conjunction with the Earliest Equity Profit Distribution Month switch on the General tab which prevents capital and profit from being distributed in the early stages of the project where there is excess cash.

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If equity contributions, manually timed at the start of the project, are greater than the cash required in the month in which they are contributed and there are no debt sources to repay, the funds will flow into the reserve account without limit. The reserve will then be drawn down to fund project costs as required in advance of equity or debt sources.

2. It recycles surplus cash already committed to the project to cover costs after all financing sources have reached their limit. The reserve account will be drawn prior to the balancing account to cover financing shortfalls. The reserve amount will be built up to the project cash reserve amount after all debt and equity finance sources have been repaid.

3. An operating or warranty fund to be consumed when necessary and released at the end of the project. The reserve will be drawn upon as necessary and rebuilt when funds are available after all debt and equity finance sources have been repaid.

In all cases, the reserve account will be released at the end of the project cash flow to repay any outstanding debt and equity finance sources, or as profit.

It is possible that the Project Cash Reserve can exceed the stated limit due to:

- Over-funding of a project due to timed contributions from either debt or equity sources

OR

- The Earliest Equity Profit Distribution Month is set to hold back positive cash flow from the project for a period of months.

Distribute Profit from Reserve Account only after the Final Project Cash Requirement
This is used to retain cash in the reserve account to fund future project costs. Select this option if you want to prevent the reserve account from distributing its cash as profit until the final project cash requirement date. Fund development costs From reserve account. When checked, any cash in the account is used to fund development costs before using debt and equity source contributions. When unchecked, no funding is available from the account and development costs must be met from debt, equity, mortgage, or balancing account sources.

Repayment/Analysis Date

Stabilized Income Month for Ratio Analysis
This is used to establish a point in time (a month) for calculating the initial yield in projects that do not take out a mortgage. This date is used for the development yield ratio calculation.

Note: This date can be set on, or relative to, a phase stage date using the standard controls for date selection that appear throughout the program.

Earliest Equity Profit Distribution Month

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Number of months from the project start date before any repayment of original contributions and interest (if any) and /or profit will be distributed to equity sources and timed project repayments (if they are flagged as "Participating" in the Finance Source tab).

Note: This setting is ignored by timed profit payments as described in Finance Module: Cash Flow View.

If the project generates revenue prior to the earliest equity profit distribution month, the money is held by the reserve account until such time as the program allows capital/profit distribution.

Note: This date can be set on or relative to a Phase/Stage date using the standard controls for date selection that appear throughout the program.

Cash Flow Options

Repay Outstanding Loans from Balancing Account at end of Project

This option is used to determine whether any loans that remain outstanding at the end of the cash flow will be repaid from the balancing account. If On, the balancing account will make a contribution to the loan that will repay all outstanding capital + interest + loan fees. This will appear as an auto contribution in the source loan's cash flow. If Off, any loan that has not been repaid will remain unpaid and the cash flow may show a deficit.

Calculate Inter-source transaction before Auto-Repayments

This option, when On, permits the calculation of inter-source transactions before auto-contributions. When Off, the calculation of inter-source transactions occurs after auto-contributions.

Include Return of Capital and Interest in Cash on Cash Returns

This option, when On, will include the amount of capital, interest and fees returned to an investor in addition to profit distribution when calculating yearly cash on cash returns on the Funding Source Report. When this option is Off, only profit distribution will be used in the calculation. For a full explanation of the cash-on-cash calculation, please refer to the Performance Measures section of the ARGUS Developer calculation manual.

Display Project-Funded information lines (italicized) in Finance Cash Flow

This option, when On, will show additional information rows in the finance cash flow for each source that has its interest or fees funded by the project. The data in these rows will be italicized. When checked Off, these rows will not be displayed in the finance cash flow. Extend project to latest mortgage amortization period: This option, when On, extends the structured finance cash flow to the latest mortgage amortization end date. This option, when Off, terminates the structure finance cash flow on the date of the latest project cost or receipt. This date could be earlier than the end of any mortgage amortization period.

Revenue source for funding project costs prior to capital and loan draw down

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This option, when On, will use any receipts from rent, unit sales or other sources to offset project costs before drawing on financing sources for contributions. It is an internal source of financing. When Off, the financing sources will contribute to project costs, then the receipts will be used to repay the sources. This could have the effect of both drawing on and repaying a loan in the same period. This allows for the use of specific sources of positive cash flow to net down project costs prior to calling on other finance sources. The sources of positive cash are: project receipts and mortgage funds.

Mortgage repayment shortfall funded by

This gives provides the option to repay a mortgage shortfall from the balancing account (default) or alternatively repay from the contribution shortfall percentage defined per source in the financing tab.

Number of Calculation iterations

The number of calculation cycles required to calculate project funded interest/finance fees and reserve account payments. Some calculations (Project Funded Interest for example) can only work on the results of a full pass through the finance calculations. Once the results of one cycle are available, they are passed into the calculation engine again. Only when a point of stability has been reached – i.e., when there is no difference between the results of two successive calculation cycles, does the process finish. To prevent endless calculation cycles, the maximum number of iterations is implemented. The default is thirty-five but not all projects require this. There are occasions where thirty-five iterations are not enough – increasing this number to say fifty or one-hundred is sometimes sufficient to achieve a stable point.

Clawback Provision

This section allows the user to define a clawback provision on the General Partner to ensure that they will not keep distributions in excess of a certain percentage which was agreed upon in the limited partnership agreement. The clawback provision will require the general partner to repay the limited partners such amounts which were distributed in excess. A typical scenario is when general partner's profit is paid out then the project requires a further equity injection (which implies that the hurdles are un-met), the general partner is expected to be the first to inject further equity (Last Out, First In).

Clawback Month

The month in which the clawback provision is activated and cash is redistributed to the investors whose hurdle rates were not achieved (excludes the general partner).

Clawback returned to Investors in Order

The clawback provision is returned to investors in the distribution order selected in the drop-down list.

Mortgages Tab

This component of the Structured Finance module allows you to define for developments with income-generating leases that are held for a period after completion of construction, mortgages that can be taken out to repay sources that have funded the development.

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Debt servicing (principal and interest) is funded from the monthly net operating income. When the property is sold, the mortgages are paid off from the proceeds of the sale.

The amount of the mortgage is based on either the net operating income from the property, or a manual amount entered by the user. When the property's income is deemed to be stable, capitalization of the income is calculated at a single capitalization rate to determine the value of the property for mortgage financing. This does not affect project-level cash flows or values.

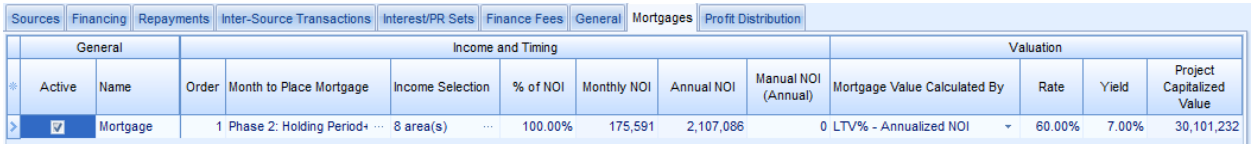
To calculate the maximum funding amount, the capitalized amount is multiplied by the loan to value percentage (shown as the mortgage amount as a percentage of value entry below).

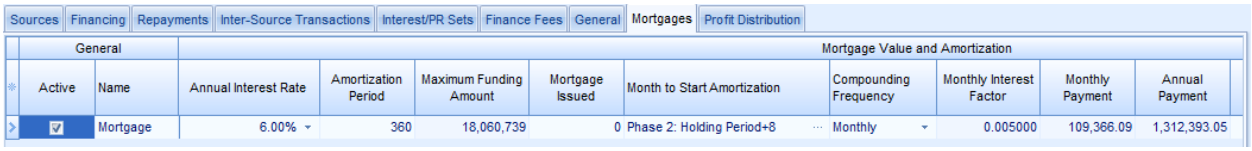
An alternative method is to use the debt service cover ratio (DSCR). The maximum funding amount on this basis is calculated as follows:

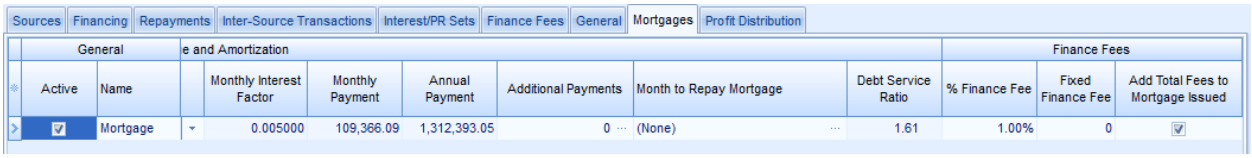
Maximum funding amount = Annual Income/DSCR/(Monthly PI factor x 12)
Any number of mortgages can be taken out in each finance structure.

The individual columns on the Mortgages tab are grouped into several main sections, left to right.

- General
- Income and Timing
- Valuation
- Mortgage Value and Amortization
- Finance Fees







Field Name	Type	Description	Grid Section
Active	Select Box	This option, when selected, enables all input fields. When it is not selected, all input fields are disabled.	General - left aligned and not scrollable.

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		When this option is selected for any mortgage, the field **Stabilized Income for Ratio Analysis** on the General tab will be enabled. When this option is not selected for all mortgages, the field **Stabilized Income for Ratio Analysis** on the General tab will be disabled.	
Name	String	The name of the mortgage that identifies it throughout the finance structures. The name must be unique.	General - left aligned and not scrollable.
Order	Integer	This field indicates: The order in which the NOI is calculated for each mortgage. The order in which P&I payments are made in each period. The order in which the mortgage balance repayments are made at the end of the project. This must be unique. Multiple mortgages cannot have the same order. Accepts positive integers in the 1-1000 range.	Income and Timing
Month to Place Mortgage	Date selection field	This date selection field is used for two purposes: . To determine the monthly net operating income from the project when income is stabilized . To place the start of the mortgage in the financing cash flow. Mortgages with a higher order will always start at, or later, than the date of mortgages with a lower order. The date cannot be earlier than any mortgage defined with a lower order. The Month to Start Amortization, in the Value section below, can never be earlier than this date.	Income and Timing
Income Selection	Edit button with pop-up area record selection editor	The Income Selection editor contains a list of capitalized rent area records for the current finance phase group. There is a option for each item that allows you to include/exclude the record from the mortgage calculation.	Income and Timing

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		100% of the NOI for a selected record will be used in the mortgage calculation. When a mortgage is added, the default setting for each option on the Income Selection window is ON.	
Monthly NOI	Numeric - Disabled	This non-editable read-only field shows the net operating income from the area records selected in **Income Selection** in the month chosen in the **Month to Place Mortgage** selector for the current mortgage. The same area record can be selected for more than one mortgage, but no more than 100% of its NOI can be used.	Income and Timing
Annual NOI	Numeric - Disabled	This is the monthly NOI multiplied by 12. The value is not editable.	Income and Timing
% of NOI	Percentage	Accepts a percentage in the range 0.00% to 100.00%. Indicates the percentage of annual NOI used in the loan calculation.	Income and Timing
Manual NOI (Annual)	Numeric - Whole Integers	Accepts positive integers in the range of 0 to 999,999,999,999. This field can be used to override the annual NOI amount. This allows you to set the mortgage amount above the amount that would be income-based. When the value of this field is other than zero, the program uses this amount in the mortgage amount calculation. When the value is zero, the program uses the value in the **Annual NOI** field above for the mortgage amount calculation.	Income and Timing
Mortgage Value Calculated By	Drop-down List	Drop-down list: Loan to Value% - 12 month NOI Loan to Value% - Annualized NOI Debt Service Coverage Ratio – 12 month NOI Debt Service Coverage ratio – Annualized NOI This drop-down list specifies how the mortgage value will be calculated: either as a loan to value ratio percentage or as a debt service coverage ratio. LTV is the relationship between the amount the lender will lend, and the value of the property.	Value

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		DSCR is the ratio of debt service (principal and interest repayments) to rental income. It is a benchmark that measures the borrower's ability to produce enough cash to cover its debt. Lenders will most likely not lend on anything less than 1 unless the borrower has strong outside income. Two options are required for the calculation of the NOI used in LTV or DSCR mortgages: . Multiply the NOI in the month to place mortgage by twelve to achieve an annualized NOI. . Take the NOI over twelve months starting in the month to place mortgage to achieve the annual NOI.	
Rate	Either percentage or decimal	Accepts either of the following: A percentage in the range 0.00% to 100.00% for the LTV%. A decimal for the DSR in the range of 0.00 to 100.00. The format of the field depends on the selection in the **Mortgage Value Calculated By** drop-down list above.	Value
Yield	Percentage	Accepts a percentage in the range of 0.00% to 100.00%, and is applied to either the Annual NOI, or the Manual NOI (Annual). The yield is used to capitalize the Annual NOI or Manual NOI (Annual), whichever has been chosen above, to determine the property value for any *Loan to Value* type mortgage. It does not affect the capitalized value of leases in the main project analysis area of ARGUS Developer. **Yield** is used only when **Mortgage Value Calculated By** = *Loan to Value (LTV) mortgages*. This field will be disabled when the **Mortgage Value Calculated By** = *Debt Service Coverage Ratio*.	Value
Project Capitalized Value	Numeric - Disabled	This is the capitalized Annual NOI or Manual NOI (Annual), whichever has been selected above. Project Capitalized Value is calculated as: Annual Net Operating Income x (1 / Yield%)	Value

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Maximum Funding Amount	Numeric - Disabled	This is: The Project Capitalized Value multiplied by the Loan to Value %. The funding amount that produces a DSCR equal to the value in the **Rate** field.	Value
Mortgage Issued	Numeric	Accepts positive integers in the range 0 - 999,999,999,999 — the calculated **Maximum Funding Amount**. If the **Maximum Funding Amount** is zero, the field accepts positive integers in the range 0 - 999,999,999,999. This field is used to override the **Maximum Funding Amount**, and take out a different principal amount mortgage on the property up to the maximum funding amount. When this field is left at zero, the program uses the **Maximum Funding Amount** value.	Value
Annual Interest Rate	Hybrid Editor	An editor that allows the entry of a single interest rate, or, alternatively, allows the selection from a list of finance rate sets. The calculation of the interest factor, monthly P&I, and annual P&I variables will be calculated for each period of the mortgage up to the end of the loan term or the end of the cash flow, whichever is sooner.	Amortization
Amortization Period	Integer - Enabled	Accepts integers in the range 0 - 999. This is the number of months over which the mortgage would be fully amortized. An entry of 0 indicates that the mortgage is treated as interest only and is not amortized.	Amortization
Month to Start Amortization	Date Selection Field	This is the date upon which amortization of the loan will start. It will never be earlier than the Month to Place Mortgage. If the Amortization Period is zero, this field will be disabled.	Amortization
Compounding Frequency	Drop-down List	The drop-down list in this field includes the following options: Monthly Quarterly Semi-Annual	Amortization

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		Annual This is used in the calculation of the Monthly Interest Factor.	
Monthly Interest Factor	Decimal - Disabled	This field shows the calculated monthly interest factor. Displayed to six decimal places. If the interest rate varies, the field will display *Varies*.	Amortization
Monthly Payment	Decimal - Disabled	This calculated field shows the monthly amount payable at the start of the loan. This will be either principal and interest, or interest only. This is dependent on the setting for the Month to Start Amortization. Displayed to two decimal places. If the interest rate varies, the field will display *Varies*.	Amortization
Annual Payment	Decimal - Disabled	This shows the annual amount repayable to the mortgage lender. Displayed to two decimal places. If the interest rate varies, the field will display *Varies*.	Amortization
Additional Payments	Amount / Time list of Integers	Accepts positive integers in the range of 0 to 999,999,999,999. Start date is indicated by the Month to Place Mortgage. Additional payments will be used to reduce the balance of the loan in the period in which they are made. In the period following the additional payment, the principal and interest due and debt service ratio will be recalculated using the new balance. If there is more than one additional payment, the field will display *Varies*. Where the amount of the payment in any period exceeds the outstanding balance of the mortgage, the balance will be et to zero and the mortgage will be fully repaid. Any additional repayments will be ignored.	Amortization

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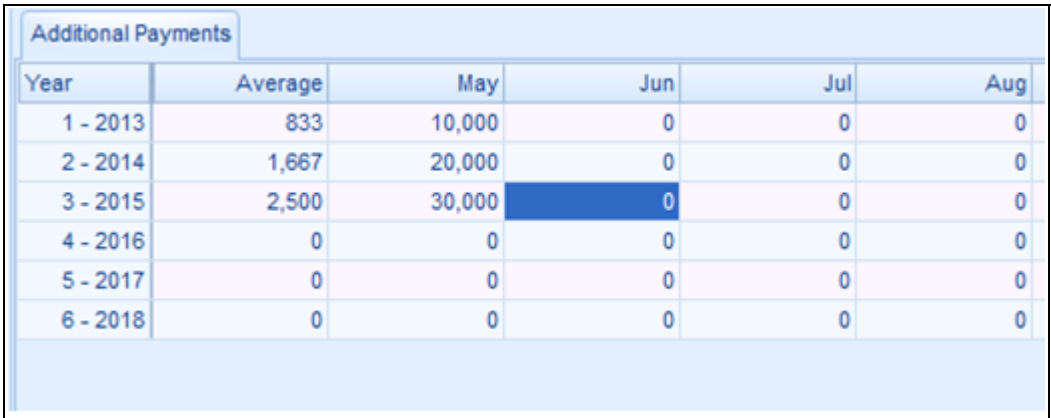 Additional Payments Year | Average | May | Jun | Jul | Aug 1 - 2013 | 833 | 10,000 | 0 | 0 | 0 2 - 2014 | 1,667 | 20,000 | 0 | 0 | 0 3 - 2015 | 2,500 | 30,000 | 0 | 0 | 0 4 - 2016 | 0 | 0 | 0 | 0 | 0 5 - 2017 | 0 | 0 | 0 | 0 | 0 6 - 2018 | 0 | 0 | 0 | 0 | 0			
Month to Repay Mortgage	Date Selection	A date selection field that determines an early fixed repayment date for the outstanding mortgage balance. The date cannot be earlier than the Month to Place Mortgage. The default selection for this field is *None*. This date will be effective only if it is earlier than: The end of the amortization period. The end of the cash flow. When *None* is selected, there will be no early repayment of the mortgage.	Amortization
Debt Service Ratio	Button Edit - Read Only	This shows the ratio of Annual NOI to annual mortgage repayment. The higher the ratio, the better able the project is able to service the debt. A ratio of 1.0 would be a break-even situation where the net operating income is just enough to cover the mortgage payments. Most mortgage lenders would have a minimum ratio of more than 1.0. If the interest rate is fixed, displayed to 2 decimal places. If the interest rate varies, the field will show *Varies*. The edit button can be clicked to show a table that displays the DSR at the start month for each new interest rate. The columns are: Month (Short Date Format) Interest Rate (2 DP) Debt Service Ratio (2DP)	Amortization

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		Annual P&I (Integer)	
% Finance Fee	Percentage - Enabled	Accepts a percentage in the range 0.00% to 100.00%. This is a percentage of the maximum funding amount or mortgage issued values in the mortgage value section (mortgage issued is an override).	Amortization
Fixed Finance Fee	Numeric - Enabled	Accepts whole numbers in the range 0 to 999,999,999,999. A monetary amount that is in addition to the amount specified in the **% Finance Fee** field.	Amortization
Add total fees to mortgage issued	Select Box - Enabled	This is an on/off setting to specify whether to add the total fees to the mortgage issued. If (ON) is selected, the full amount of the mortgage is funded and received by the relevant source, but the opening balance of the mortgage is increased by the amount of the fees. This will result in higher mortgage payments and interest compared with the un-selected option. If this option is not selected (OFF), the total fees entered will be deducted from the proceeds of the mortgage that is actually received by the relevant sources (usually the primary debt sources).	Amortization

Profit Distribution Tab

This screen defines the key elements of profit-related distributions to the various sources of funds that have invested in a project.

Profit distributions can range from being very simple to very complex. The simplest distribution would be one source receiving all profits - this requires only one line of profit distribution. Another simple structure would be two sources splitting profits on a percentage basis.

ARGUS Developer allows the set up of unlimited numbers of distributions between sources. The Profit Distribution tab allows profits to be distributed in flexible orders (also called waterfalls) - the results of which are easily followed in the Finance Cash Flow.

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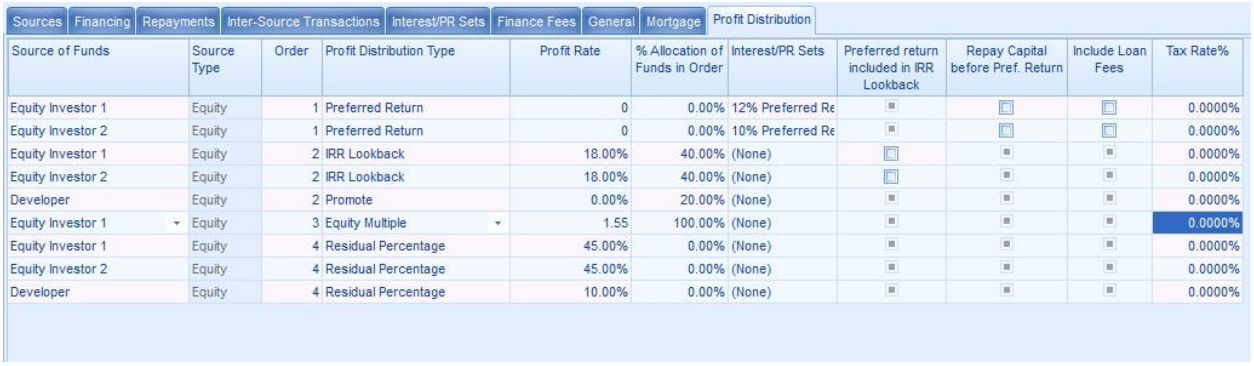

Source of Funds	Source Type	Order	Profit Distribution Type	Profit Rate	% Allocation of Funds in Order	Interest/PR Sets	Preferred return included in IRR Lookback	Repay Capital before Pref. Return	Include Loan Fees	Tax Rate%
Equity Investor 1	Equity	1	Preferred Return	0	0.00%	12% Preferred Re	☐	☐	☐	0.0000%
Equity Investor 2	Equity	1	Preferred Return	0	0.00%	10% Preferred Re	☐	☐	☐	0.0000%
Equity Investor 1	Equity	2	IRR Lookback	18.00%	40.00%	(None)	☐	☐	☐	0.0000%
Equity Investor 2	Equity	2	IRR Lookback	18.00%	40.00%	(None)	☐	☐	☐	0.0000%
Developer	Equity	2	Promote	0.00%	20.00%	(None)	☐	☐	☐	0.0000%
Equity Investor 1	Equity	3	Equity Multiple	1.55	100.00%	(None)	☐	☐	☐	0.0000%
Equity Investor 1	Equity	4	Residual Percentage	45.00%	0.00%	(None)	☐	☐	☐	0.0000%
Equity Investor 2	Equity	4	Residual Percentage	45.00%	0.00%	(None)	☐	☐	☐	0.0000%
Developer	Equity	4	Residual Percentage	10.00%	0.00%	(None)	☐	☐	☐	0.0000%

Note: You may need to install the Advanced Finance module in order to obtain this "waterfall" feature.

The following table describes the set-up of profit distribution:

Heading	Type	Description
Source of Funds	Text; non-editable drop-down list	Select from the list of sources in the Sources tab at left of window. Each line must have a source.
Source Type	Text	Displays the type (Debt, Equity, or Equity GP) of source for the current line, as defined in the Sources tab.
Order	Integer	Order refers to the priority in which the various sources receive profit distributions. Multiple sources can be in an order — if there are a number of orders in a profit distribution they could be referred to as "Waterfalls" or "Tranches" of profit distribution.
Profit Distribution Type	Text; non-editable drop-down list	Choices are: • Preferred Return If you have the Advanced Finance module, you will also have the following options available to you: • Profit Amount • IRR Lookback • IRR Lookback at Sale Date • Promote

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		• Equity Multiple • Catch-Up • Catch-Up Promote • Residual Percentage **Note:** You cannot mix Profit Distribution Types within the same Profit Distribution Order except IRR Lookback and Promote, Equity Multiple and Promote, or Catch-Up and Catch-Up Promote. For important rules about the application of the above choices please see Profit Distribution Types.
% Allocation of Funds in Order	% value	Refers to the % of funds this source will receive towards its current row definition profit, within the current order. Applies to all Profit Distribution Types except Preferred Return and Residual Percentage.
Interest/PR Rates	Text; non-editable drop-down list	This setting only applies if the *Preferred Return* option is selected in the **Profit Distribution Type** drop-down list. Available choices are from the entries made in the Interest/PR Rates tab.
Preferred Return included in IRR Lookback	Select box	This setting only applies if the *Preferred Return* option is selected in the **Profit Distribution Type** drop-down list. If ON, the Preferred Return payments are included in the cash flow for IRR calculations. If OFF, the IRR Lookback return is exclusive of any Preferred Return payments. The actual IRR for this source could be in excess of the hurdle rate because the Preferred Return payments are not included.
Include Loan Fees	Select box	This setting only applies if the *Preferred Return* option is selected in the **Profit Distribution Type** drop-down list. If you select this option, the loan fees calculated on a source's contributions will be included in the cash flow used for calculating the Preferred Return.
Tax Rate	% Value	This setting applies a single, flat, rate of tax to the amount of profit distributed to this source.

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		In addition to the existing Profit Distribution line shown in the cash flow, two new lines are now shown. These represent the amount of tax and the after tax profit.

Profit Distribution Types
Below is an explanation of the terms used in the **Profit Distribution Type** field above:

Preferred Return
Calculated like interest based on the balance of capital over time, it is treated as a distribution of profit. When funds are available, they are applied to the accrued balance of preferred returns outstanding first, then to the outstanding capital balance (the return of contributed capital is called repayment). preferred return types must be in the lowest numbered profit order and not mixed with other types.

Preferred returns cannot be attached to any source of funds shown in the Profit Distribution tab for which there is an interest set defined in the Finance tab.

Profit Amount
A fixed amount of profit to be distributed.

IRR Lookback
Pays funds to a financing source until the target IRR is achieved, evaluated on a monthly basis from available cash flow. The target IRR cannot decrease for the same source of funds as the profit order number increases.

IRR Lookback at Sale Date
Pays funds to a financing source at sale date.

Promote
A Promote profit distribution is allocated the last available percentage of funds in a profit order in conjunction with an IRR Lookback source. A promote is paid indefinitely until the IRR look back is fully paid. This is the only way in which a promote can be used. Thus, a promote cannot be the only Profit Type with a Profit Order - it must be entered in conjunction with an IRR Lookback or IRR Lookback at Sale Date.

Equity Multiple
This profit method is based on distributing profit when a multiple of the capital invested by a source (debt or equity) is achieved. The equity multiple is calculated on the balance of a source's capital investment, interest & fees, capital repayments, inter-source transactions, and profit from lower-ordered distributions. The amount of equity multiple can be in decimal format – e.g., 1.22 representing 122% of the balance as described above.

Catch-Up
A type of profit distribution that will be paid to the general partner (fund manager) after any preferred return has been distributed in prior orders of distribution. A percentage of available free cash will be paid to the general partner until they have received an amount equal to their share of the total of the profit distributed to date. This includes profit distributed to prior orders AND to the order in which the catch-up appears.

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Catch-Up Promote
A catch-up promote profit distribution is allocated the last available percentage of funds in a profit order in conjunction with a catch-up source. The catch-up promote will be paid indefinitely until the catch-up is fully paid. This is the only way in which a catch-up promote can be used. A catch-up promote cannot be the only profit type with a profit order – it must be entered in conjunction with the catch-up.

Residual Percentage
The final waterfall of distribution, this is the remaining profit to be distributed in a project. The residual percentage type can only be associated with the highest profit order number. The total percentage payable to all residual entries within the highest order should not exceed 100%.

Performance Measures

The Performance Measures tab which used to be part of the Finance Setup window in versions up to, and including, 4.05, has now been moved to the main application area to integrate it more fully with the reporting functions.

See Also

Key Performance Indicators

Finance Module: Cash Flow View

Once you have entered your finance assumptions, you can view the results in the cash flow area of the program. This area shows you the results in a timed cash flow, compared with the snapshot view in the Performance Measures area in the main Developer workspace. Reports of the finance cash flow can be previewed and printed from the Reports area of the program.

To access the Finance Cash Flow view, go into the main workspace of ARGUS Developer and select the Finance Cash Flow tab.

Note: The *Structured Financing* mode must be selected for the finance sources cash flow to display. If the *Basic (Interest Sets)* mode is active, Structured Finance Cash Flow details will not be displayed.

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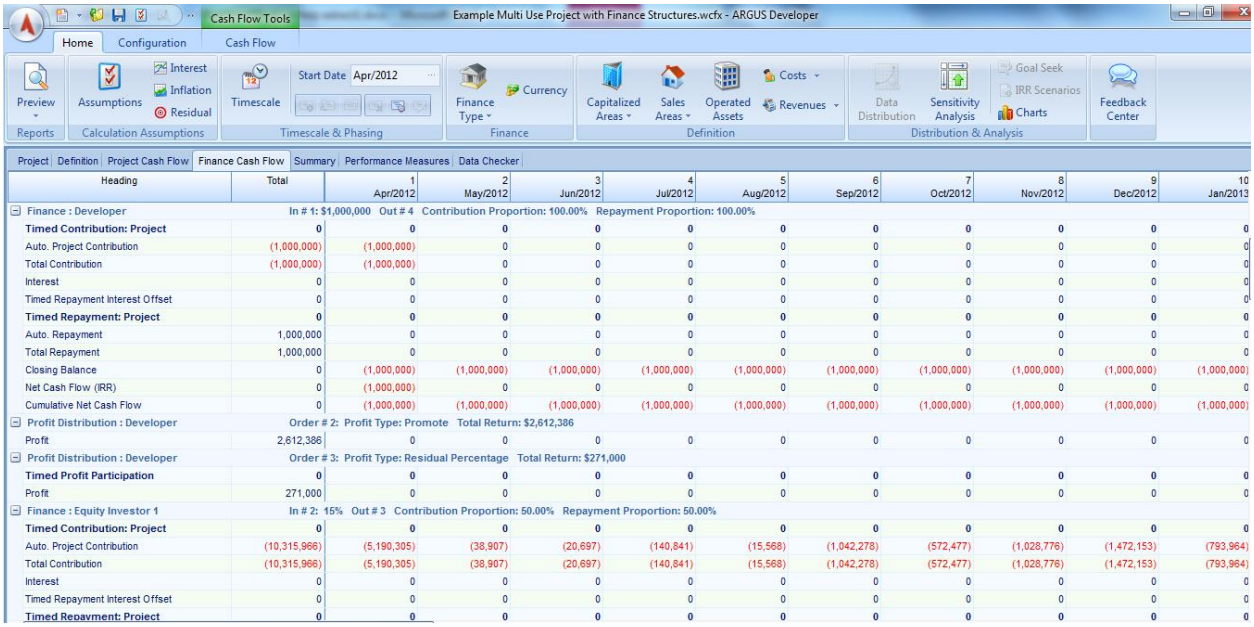

Heading	Total	1 Apr/2012	2 May/2012	3 Jun/2012	4 Jul/2012	5 Aug/2012	6 Sep/2012	7 Oct/2012	8 Nov/2012	9 Dec/2012	10 Jan/2013
Finance : Developer	In # 1: $1,000,000 Out # 4 Contribution Proportion: 100.00% Repayment Proportion: 100.00%										
Timed Contribution: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Project Contribution	(1,000,000)	(1,000,000)	0	0	0	0	0	0	0	0	0
Total Contribution	(1,000,000)	(1,000,000)	0	0	0	0	0	0	0	0	0
Interest	0	0	0	0	0	0	0	0	0	0	0
Timed Repayment Interest Offset	0	0	0	0	0	0	0	0	0	0	0
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Repayment	1,000,000	0	0	0	0	0	0	0	0	0	0
Total Repayment	1,000,000	0	0	0	0	0	0	0	0	0	0
Closing Balance	0	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
Net Cash Flow (IRR)	0	(1,000,000)	0	0	0	0	0	0	0	0	0
Cumulative Net Cash Flow	0	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
Profit Distribution : Developer	Order # 2: Profit Type: Promote Total Return: $2,612,386										
Profit	2,612,386	0	0	0	0	0	0	0	0	0	0
Profit Distribution : Developer	Order # 3: Profit Type: Residual Percentage Total Return: $271,000										
Timed Profit Participation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Profit	271,000	0	0	0	0	0	0	0	0	0	0
Finance : Equity Investor 1	In # 2: 15% Out # 3 Contribution Proportion: 50.00% Repayment Proportion: 50.00%										
Timed Contribution: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Project Contribution	(10,315,966)	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)	(793,964)
Total Contribution	(10,315,966)	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)	(793,964)
Interest	0	0	0	0	0	0	0	0	0	0	0
Timed Repayment Interest Offset	0	0	0	0	0	0	0	0	0	0	0
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

The Finance Cash Flow view provides a detailed breakdown of each finance source over the life of the project. Options in this area that you can select on the ribbon include the following:

- **Expand:** Click the **Expand** button to expand all cash flows.
- Collapse: Click the **Collapse** button to collapse all cash flows.
- **Cycle:** Select the Cash Flow View choices of *Monthly*, *Quarterly*, *Half Yearly*, and *Annually*. There are also custom view cycles that you can define in the drop-down list.
- **Order:** Select from the following:
- *Show Consolidated Profit & Source Cash Flows*
- *Show Detailed Cash Flows in Contribution Order* - this view provides a more detailed breakdown than the Consolidated view.
- *Show Profit by Distribution Order, then Detail*
- *Show Summary of Finance Structures by Source* - this view provides a Summary cash flow for each funding source. Each summary contains selected cash flow data from all the finance structures in which the source participates.

The heading for each cash flow line clearly shows to which finance structure it belongs. The cash flow lines are grouped by contributions, repayments, interest and fees, closing balance, profit distribution, net cash flow, and cumulative net cash flow.

Group Lines

The project-level view is always shown as the first group in the Finance Cash Flow. Each source then has a grouping line which will display basic assumptions and performance measures: IRR, profit, and return on equity (ROE).

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IRR
The IRR is based on the "Net Cash Flow (IRR)" line (second from the bottom).

ROE (Return on Equity)
Total Returns divided by total contributions.

In #
Refers to the order of Contribution (1 is first, 2 is next, and so on) and the percentage of cost contribution.

Out #
Refers to the order of repayment; noting that the balancing account is always repaid first. Within both equity and debt sources, you can specify them with the same (or different) order number.

Debt Funding Source
This source type (Debt) only appears if you have defined a debt funding source; one such group view will appear for each defined debt source of finance.

Finance : Construction loan	IRR: 0.0%	Profit Amount: $0								
Timed Contribution: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Project Contribution	(48,141,177)	0	0	0	(12,233,501)	(18,377,964)	(13,427,395)	(3,845,995)	(255,722)	(600)
Total Contribution	(48,141,177)	0	0	0	(12,233,501)	(18,377,964)	(13,427,395)	(3,845,995)	(255,722)	(600)
Fixed Amount Loan Fees	(10,000)	0	0	0	(10,000)	0	0	0	0	0
% Loan Fees	(497,596)	0	0	0	(497,596)	0	0	0	0	0
Total Loan Fees	(507,596)	0	0	0	(507,596)	0	0	0	0	0
Interest	(1,618,386)	0	0	0	(43,223)	(273,780)	(497,315)	(476,764)	(234,507)	(92,797)
Interest and Fees	(2,125,982)	0	0	0	(550,819)	(273,780)	(497,315)	(476,764)	(234,507)	(92,797)
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Repayment	50,267,159	0	0	0	73,440	73,440	10,780,145	14,001,312	13,156,354	12,182,468
Total Repayment	50,267,159	0	0	0	73,440	73,440	10,780,145	14,001,312	13,156,354	12,182,468
Closing Balance	0	0	0	0	(12,710,880)	(31,289,183)	(34,433,748)	(24,755,195)	(12,089,070)	0
Timed Profit Participation	0	0	0	0	0	0	0	0	0	0
Auto. Profit Participation	0	0	0	0	0	0	0	0	0	0
Total Profit Participation	0	0	0	0	0	0	0	0	0	0
Net Cash Flow (IRR)	0	0	0	0	(12,710,880)	(18,578,304)	(3,144,565)	9,678,553	12,666,125	12,089,070
Cumulative Net Cash Flow	0	0	0	0	(12,710,880)	(31,289,183)	(34,433,748)	(24,755,195)	(12,089,070)	0

Timed Contributions
These are "spot" figures you enter in a specific period in the Cash Flow view (monthly only). When a timed contribution is entered, no automatic contribution will be calculated in the same period. If the cash flow does not require the full amount entered, the excess is added to the reserve account in the Project Cash Flow as a receipt and will be distributed back to the sources according to their definitions. Timed contributions can only be entered when the Finance Cash Flow view is set to *Detailed Cash Flow in Contribution Order*.

Auto. Contributions
These are contributions calculated by the program from the cash requirement in any period, and are defined in the main Finance Setup area. At the outset of the project time frame, the source may have committed an amount representing its Contribution to the project. The program will spend this as and when required, until the balance is reduced to zero.

Total Contributions
The total of Timed and Auto Contributions.

Loan Fees
Fixed amount, % and Total loan fees. Please see Finance Fees for Loan Fee information.

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Interest and Fees
The total amount of interest accumulated by the partner's loan in the period displayed, plus any loan fees defined.

Timed Repayments
Timed Repayments refer to the date and amount for a specific repayment of original contributions and interest (if any) for this source. If there is not enough money available, the balancing account will fund any shortfall.

Auto Repayments
Automatically calculated repayment of original contributions and interest (if any) for this source. "Repayments" specifically exclude Profit (if any).

Total Repayments
Total of timed and auto repayments.

Closing Balance
The current period ending balance of account for this source.

Timed Profit Participation
Includes contributions/repayments/interest/profit.

Auto Profit Participation
This is optional, allowing for debt sources that earn interest and/or a share of profits; this option is defined in the main Finance Setup covered in the first section of this chapter.

Total Profit Participation

The total of timed and auto profit participation.

Net Cash Flow (IRR)

The actual line used for the calculation of IRR.

Cumulative Net Cash Flow

Current period net position for this source.

Equity Source

Equity sources earn their return from repayment of their original contributions, their share of available distributions from cash flow, proceeds of sale and proceeds of mortgage (permanent financing), and any reserve amount held by the balancing account at the end of the project.

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Heading	Total	1 Apr/2012	2 May/2012	3 Jun/2012	4 Jul/2012	5 Aug/2012	6 Sep/2012	7 Oct/2012	8 Nov/2012	9 Dec/2012
Finance : Equity Investor 1	In # 2: 15% Out # 3 Contribution Proportion: 50.00% Repayment Proportion: 50.00%									
Timed Contribution: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Project Contribution	(10,315,966)	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)
Total Contribution	(10,315,966)	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)
Interest	0	0	0	0	0	0	0	0	0	0
Timed Repayment Interest Offset	0	0	0	0	0	0	0	0	0	0
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Repayment	10,315,966	0	0	0	0	0	0	0	0	0
Total Repayment	10,315,966	0	0	0	0	0	0	0	0	0
Closing Balance	0	(5,190,305)	(5,229,212)	(5,249,909)	(5,390,750)	(5,406,318)	(6,448,596)	(7,021,073)	(8,049,849)	(9,522,002)
Net Cash Flow (IRR)	0	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)
Cumulative Net Cash Flow	0	(5,190,305)	(5,229,212)	(5,249,909)	(5,390,750)	(5,406,318)	(6,448,596)	(7,021,073)	(8,049,849)	(9,522,002)
Profit Distribution : Equity Investor 1	Order # 1: Profit Type: Preferred Return IRR: 12.7% Total Return: $2,780,868									
Capital Contributions	(10,315,966)	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)
Capital Repayments	10,315,966	0	0	0	0	0	0	0	0	0
Capital Balance	0	(5,190,305)	(5,229,212)	(5,249,909)	(5,390,750)	(5,406,318)	(6,448,596)	(7,021,073)	(8,049,849)	(9,522,002)
Preferred Return Accrued	(2,780,868)	0	(51,903)	(52,811)	(53,546)	(54,890)	(55,475)	(66,332)	(72,600)	(83,494)
Preferred Return Payment	2,780,868	0	0	0	60,000	12,000	12,000	12,000	12,000	12,000
Preferred Return Balance	0	0	(51,903)	(104,714)	(98,260)	(141,151)	(184,625)	(238,957)	(299,558)	(371,052)
Total Capital & Pref. Return Outstanding	0	(5,190,305)	(5,281,115)	(5,302,720)	(5,384,296)	(5,449,208)	(6,492,071)	(7,075,405)	(8,110,449)	(9,593,496)
Balance for PR Accrual	0	(5,190,305)	(5,281,115)	(5,354,623)	(5,489,010)	(5,547,469)	(6,633,221)	(7,260,030)	(8,349,407)	(9,893,054)
Net Cash Flow (IRR)	2,780,868	(5,190,305)	(38,907)	(20,697)	(80,841)	(3,568)	(1,030,278)	(560,477)	(1,016,776)	(1,460,153)
Profit Distribution : Equity Investor 1	Order # 2: Profit Type: IRR Lookback IRR: 20.0% Total Return: $5,224,772									
Source Net Cash Flow	0	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)	(572,477)	(1,028,776)	(1,472,153)

See previous notes for the Debt Source for an explanation of the line types shown above.

Mortgage

Finance : Mortgage	IRR: 7.5%	Annual Int. Rate/Comp: 6.00%/Monthly	Annual Payment(P+I): $2,090,843	DS Ratio: 1.61	Initial Loan/Value Ratio: 0.6		
Opening Balance	0	0	0	0	0	0	0
Total Loan Fees	287,735	0	0	0	0	0	0
Interest	1,446,466	0	0	0	0	0	0
Principal Repaid	29,061,262	0	0	0	0	0	0
Total P+I Payment	30,507,728	0	0	0	0	0	0
Additional Payments	0	0	0	0	0	0	0
Closing Balance	0	0	0	0	0	0	0
Net Cash Flow (IRR)	1,734,201	0	0	0	0	0	0

These lines display the monthly cash flows related to the mortgage.

Balancing Account

Finance : Balancing Account	IRR: 0.0%								
Timed Contribution	0	0	0	0	0	0	0	0	0
Timed Contribution: Profit	0	0	0	0	0	0	0	0	0
Total Contribution	0	0	0	0	0	0	0	0	0
Interest	0	0	0	0	0	0	0	0	0
Timed Repayment: Profit	0	0	0	0	0	0	0	0	0
Total Repayment	0	0	0	0	0	0	0	0	0
Closing Balance	0	0	0	0	0	0	0	0	0
Profit Distribution	5,020,743	0	0	0	120,000	24,000	24,000	24,000	24,000
Profit Participation	0	0	0	0	0	0	0	0	0
Net Cash Flow (IRR)	0	0	0	0	0	0	0	0	0
Cumulative Net Cash Flow	0	0	0	0	0	0	0	0	0

See previous notes for Debt sources for an explanation of the line types shown above.

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Combined Sources

Finance : Combined Sources	IRR: 21.6%						
Auto. Project Contribution	(69,773,109)	(11,380,610)	(77,814)	(41,394)	(281,682)	(31,136)	(2,084,556)
Timed Contribution: Project	0	0	0	0	0	0	0
Total Contribution	(69,773,109)	(11,380,610)	(77,814)	(41,394)	(281,682)	(31,136)	(2,084,556)
Loan Fees	(507,596)	0	0	0	0	0	0
Non-Mortgage Interest	(1,618,386)	0	0	0	0	0	0
Non-Mortgage Interest and Fees	(2,125,982)	0	0	0	0	0	0
Timed Repayment Interest Offset	0	0	0	0	0	0	0
Auto. Repayment	71,899,092	0	0	0	0	0	0
Timed Repayment: Project	0	0	0	0	0	0	0
Total Repayment	71,899,092	0	0	0	0	0	0
Closing Balance	0	(11,380,610)	(11,458,424)	(11,499,818)	(11,781,500)	(11,812,636)	(13,897,192)
Profit Participation	18,906,090	0	0	0	120,000	24,000	24,000
Net Cash Flow (IRR)	18,906,090	(11,380,610)	(77,814)	(41,394)	(161,682)	(7,136)	(2,060,556)
Net Cash Flow (Equity IRR)	18,906,090	(11,380,610)	(77,814)	(41,394)	(161,682)	(7,136)	(2,060,556)
Cumulative Net Cash Flow	0	(11,380,610)	(11,458,424)	(11,499,818)	(11,661,500)	(11,668,636)	(13,729,192)

See previous notes for Debt sources for an explanation of the line types shown above.

General Principles of Structured Finance

Treatment of Preferred Returns

Preferred returns are considered as a distribution of profits of a project, rather than an Interest cost. This means that a preferred return is not part of the total project cost, as it is paid to an equity source - and thus results in a lower cost base for the project than if the same amount was paid as an Interest cost. Accrued preferred returns are repaid prior to the repayment of a source's contribution.

Repayment Order

You cannot go to the next repayment order # until the repayment of sources in the current repayment order # is complete.

Example: Repayment order 2, available cash distribution: partner A 20%; partner B 10%; construction loan 70%; repayment order 3: partner C 100%; If partner A gets fully repaid but partner B and the construction loan have balances outstanding, the intent is to finish paying off partner B and the construction loan before moving onto partner C, otherwise partner C would have been included in repayment order 2. The above principles apply within the context of the month-to-month calculations that ARGUS Developer does; therefore, it is possible that a repayment order 3 could be repaid in the same month as a repayment order 2 from an overall (project) perspective, as long as the calculations were complete for order 2 within the same month. This is further effected by the potential inclusion of timed profits.

Setup of Interest Cost and a Preferred Return for the same source

You cannot have an Interest cost in the Financing tab and a preferred return in the profit distribution tab for the same source of funds (irrespective of order).

Profit Distribution Definition

In the Profit Distribution tab, Preferred Return definitions must be entered as the lowest order. The actual order number can be any number, just as long as it is the lowest number in the order column.

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Note: There is no connection between the order numbers that appear in the Profit Distribution screen and the Financing screen; they work independently. You cannot mix profit distribution types within the same profit distribution order except IRR lookback and promote.

Timed Profits

Timed Profits are not permitted when preferred returns are selected for a Finance setup.

Repayment Orders

Structured Finance sources are repaid before the Project Cash Reserve is funded.

IRR Calculations

ARGUS Developer provides a number of different Internal Rate of Return (IRR) calculations. All IRR values are calculated on a monthly basis, with the monthly rate converted to an annual rate with the general formula: 1 - (1 + monthly IRR)^12. The IRR is recalculated automatically to reflect the currently active phase or group of phases.

The KPI panels in the main Developer workspace can be configured to display Pre-Finance, Project, and Equity IRR:

In addition to the above IRRs, there are individual IRRs calculated for each source in a project.

The various IRRs are explained below:

Pre-Finance IRR

This IRR is the IRR that a Phase or Group of Phases would produce without regard to financing costs (interest) and without consideration of how the project is funded.

The following screen example shows the "Net Cash Flow Pre-Finance (IRR)" line from the Finance DCF view, which is calculated prior to the consideration of Interest and profit.

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Finance : Project Cash Flow Pre-Finance	IRR: 21.4%									
Revenue: Unit Sales	39,660,210	0	0	0	200,000	40,000	40,000	40,000	40,000	40,000
Revenue: Rental Income	3,048,720	0	0	0	0	0	0	0	0	0
Revenue: Capitalized Rent	51,159,217	0	0	0	0	0	0	0	0	0
Revenue: Other	(1,328,763)	0	0	0	(80,000)	(16,000)	(16,000)	(16,000)	(16,000)	(16,000)
Total Revenue	92,539,383	0	0	0	120,000	24,000	24,000	24,000	24,000	24,000
Cash Outflows (Dev. Costs)	(69,773,109)	(11,380,610)	(77,814)	(41,394)	(281,682)	(31,136)	(2,084,556)	(1,144,954)	(2,057,552)	(2,944,306)
Net Cash Flow Pre-Finance (IRR)	22,766,274	(11,380,610)	(77,814)	(41,394)	(161,682)	(7,136)	(2,060,556)	(1,120,954)	(2,033,552)	(2,920,306)
Mortgage Funding	28,773,527	0	0	0	0	0	0	0	0	0
Mortgage Repayment: Total P&I	(30,507,728)	0	0	0	0	0	0	0	0	0
Reserve In	13,885,348	0	0	0	0	0	0	0	0	0
Reserve Out	(13,885,348)	0	0	0	0	0	0	0	0	0
Reserve Balance	0	0	0	0	0	0	0	0	0	0
Available for Distribution	90,805,182	0	0	0	120,000	24,000	24,000	24,000	24,000	24,000
Timed Profit Distribution	0	0	0	0	0	0	0	0	0	0
Auto. Profit for Distribution	18,906,090	0	0	0	120,000	24,000	24,000	24,000	24,000	24,000
Profit Distribution to Order 1	5,020,743	0	0	0	120,000	24,000	24,000	24,000	24,000	24,000
Profit Distribution to Order 2	12,942,057	0	0	0	0	0	0	0	0	0
Profit Distribution to Order 3	943,290	0	0	0	0	0	0	0	0	0
Finance : Developer	In # 1: $1,000,000 Out # 4 Contribution Proportion: 100.00% Repayment Proportion: 100.00%									
Profit Distribution : Developer	Order # 2: Profit Type: Promote Total Return: $2,572,428									
Profit	2,572,428	0	0	0	0	0	0	0	0	0
Profit Distribution : Developer	Order # 3: Profit Type: Residual Percentage Total Return: $282,987									
Timed Profit Participation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Profit	282,987	0	0	0	0	0	0	0	0	0

Combined Sources IRR

Also referred to as "IRR" (it is shown as IRR in the results bar), this is a composite of the monthly cash flows for all sources (both debt and equity) of the following contributions and repayments over the life of the finance structures that are currently activated:

Contributions:

- All Debt Sources
- All Equity Sources

Repayments including Interest:

- All Debt Sources
- All Equity Sources

All Profit Distributions (Profits include Preferred Returns):

- All Debt Sources
- All Equity Sources

The calculation of the combined sources IRR is illustrated below in the Finance Cash Flow area:

Finance : Combined Sources	IRR: 21.6%									
Auto. Project Contribution	(69,773,109)	(11,380,610)	(77,814)	(41,394)	(281,682)	(31,136)	(2,084,556)	(1,144,954)	(2,057,552)	(2,944,306)
Timed Contribution: Project	0	0	0	0	0	0	0	0	0	0
Total Contribution	(69,773,109)	(11,380,610)	(77,814)	(41,394)	(281,682)	(31,136)	(2,084,556)	(1,144,954)	(2,057,552)	(2,944,306)
Loan Fees	(507,596)	0	0	0	0	0	0	0	0	0
Non-Mortgage Interest	(1,618,386)	0	0	0	0	0	0	0	0	0
Non-Mortgage Interest and Fees	(2,125,982)	0	0	0	0	0	0	0	0	0
Auto. Repayment	71,899,092	0	0	0	0	0	0	0	0	0
Timed Repayment: Project	0	0	0	0	0	0	0	0	0	0
Total Repayment	71,899,092	0	0	0	0	0	0	0	0	0
Closing Balance	0	(11,380,610)	(11,458,424)	(11,499,818)	(11,781,500)	(11,812,636)	(13,897,192)	(15,042,146)	(17,099,698)	(20,044,004)
Profit Participation	18,906,090	0	0	0	120,000	24,000	24,000	24,000	24,000	24,000
Net Cash Flow (IRR)	18,906,090	(11,380,610)	(77,814)	(41,394)	(161,682)	(7,136)	(2,060,556)	(1,120,954)	(2,033,552)	(2,920,306)
Net Cash Flow (Equity IRR)	18,906,090	(11,380,610)	(77,814)	(41,394)	(161,682)	(7,136)	(2,060,556)	(1,120,954)	(2,033,552)	(2,920,306)
Cumulative Net Cash Flow	0	(11,380,610)	(11,458,424)	(11,499,818)	(11,661,500)	(11,668,636)	(13,729,192)	(14,850,146)	(16,883,698)	(19,804,004)

The "Total Contribution" line is the total of all contributions from all Structured Finance sources. The "Net Cash Flow (IRR)" line is the total of all net cash flows for all Structured Finance sources.

Note: Where a Tax Rate% has been entered for a profit distribution source, additional lines will be automatically added to the cash flow to represent:

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- Tax amount calculated on Pre-Tax Profit
- After Tax Profit Amount
- Net Cash flow After Tax (IRR)

Equity IRR
This is the overall combined IRR (not an average) of all equity sources in a project based on:

- All Equity Source Contributions
- All Equity Source Repayments including interest, if any
- All Equity Source Profits including Preferred Returns, if any

The equity IRR will typically be higher than the combined sources IRR, since the equity IRR takes advantage of the debt financing, whereas the combined sources IRR is a composite IRR for all sources including the debt sources.

To see the individual IRR for each equity partner, refer to any one of the following areas:

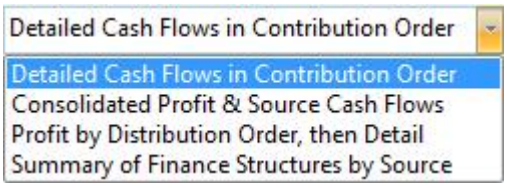
- Performance Measures in the main developer workspace
- Finance Cash Flow view (as shown in the combined sources IRR explanation above);
- Report Menu - Funding Source Cash Flow report.

Note: Where a tax rate percentage has been entered for an equity source, an additional IRR will be calculated for the after tax equity IRR.

Timed Contributions

Timed Contributions allow you to re-distribute the timing of a source's contributions to a project — they do not provide for changing the actual amount of contribution. If you require detailed control (instead of the "auto" contributions calculated by the program) over the total contribution made by a source, use either the **Contribution Cap** or **Fixed Contribution** fields in the Financing tab of the Finance Setup.

To enter timed contributions, the view order in the finance cash flow area must be set to the *Show Detailed Cash flows in Contribution Order* option, as shown in the screen below:



Example: The developer's contribution is payable in irregular amounts as required by the specific needs of the project for cash. However, if the developer has agreed to pay a certain amount "up front" in the first month this can be defined as a timed contribution, with the balance of his contribution payable as required by the project calculated automatically by ARGUS Developer, as shown below.

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Finance : Developer	In # 1: $1,000,000	Out # 4	Contribution Proportion: 100.00%	Repayment Proportion: 100.00%			
Timed Contribution: Project	**(500,000)**	**(500,000)**	**0**	**0**	**0**	**0**	**0**
Auto. Project Contribution	(500,000)	0	(77,814)	(41,394)	(281,682)	(31,136)	(67,973)
Total Contribution	(1,000,000)	(500,000)	(77,814)	(41,394)	(281,682)	(31,136)	(67,973)
Interest	0	0	0	0	0	0	0
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Auto. Repayment	1,000,000	0	0	0	0	0	0
Total Repayment	1,000,000	0	0	0	0	0	0
Closing Balance	0	(500,000)	(577,814)	(619,208)	(900,890)	(932,027)	(1,000,000)
Net Cash Flow (IRR)	0	(500,000)	(77,814)	(41,394)	(281,682)	(31,136)	(67,973)
Cumulative Net Cash Flow	0	(500,000)	(577,814)	(619,208)	(900,890)	(932,027)	(1,000,000)

Note: The automatically calculated "Auto Contribution" in month one is zero with the timed contribution: Project Amount being active. The total amount Contributed by the developer has not changed from that originally calculated by ARGUS Developer. Timed contributions can be made for any debt or equity source.

Timed Repayments

Timed repayments may be made in the Finance Cash Flow view in the Show Detailed Cash flows in Contribution Order view in two ways:

The first way is similar to the timed contributions described above, where the program will automatically re-distribute the timing of a source's repayments from the project. In this mode, the program will not change the actual amount of repayment relative to it being calculated in full Auto. Repayment mode.

This method requires that the *Manually Time Repayments* option in the Repayments tab of the setup area is clear (off) for the source, as shown below:

Sources | Financing | Repayments | Inter-Source Transactions | Interest/PR Sets | Finance Fees | General | Mortgages | Profit Distribution

Sources			Repayments								
Source of Funds	Source Type	Contribution Order	Order	Manually Time Repayments	Earliest Repayment Date	Fixed Repayment Date	Repayment Source	Unit Sales Selection	Unlimited Repayment	Proportionate	% of Funds Available
Developer	Equity	1	4	☐	Project Start	(None)	Available Cash	N/A	■	☑	0.00%
Equity Investor 1	Equity	2	3	☐	Project Start	(None)	Available Cash	N/A	■	☑	0.00%
Equity Investor 2	Equity	2	3	☐	Project Start	(None)	Available Cash	N/A	■	☑	0.00%
Construction loan	Debt	3	2	☐	Project Start	(None)	Available Cash	N/A	■	☑	0.00%
Balancing Account	Debt	4	1	■	Project Start	(None)	Available Cash	N/A	■	■	0.00%

Once this is set, you can enter Timed Repayments in the Cash Flow area for the source under discussion.

The second method allows complete control over the amount and timing of repayments. To do this, select the *Manually Time Repayments* option (ON) for the source in question in the screen above. When this box is selected, the "Auto. Repayments" for the source is disabled completely, allowing for (only) arbitrary and unadjusted repayments.

Timed Profits

Timed Profits may be entered into the Profit Distribution Cash Flow Group in the Finance Cash Flow.

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To do this, you must first set the Finance Cash Flow view to Detailed Cash flows in Contribution Order. Then the Profit Distribution Group will appear and will be editable, as shown for a typical source in the following screen segment:

Profit Distribution : Equity Investor 2	Order # 2: Profit Type: IRR Lookback IRR: 20.0% Total Return: $5,144,857						
Source Net Cash Flow	0	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)
Closing Balance	0	(5,190,305)	(5,229,212)	(5,249,909)	(5,390,750)	(5,406,318)	(6,448,596)
Timed Profit Participation	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Source Profit Participation	0	0	0	0	0	0	0
IRR Profit Participation	5,144,857	0	0	0	0	0	0
Profit	5,144,857	0	0	0	0	0	0
Net Cash Flow (IRR)	5,144,857	(5,190,305)	(38,907)	(20,697)	(140,841)	(15,568)	(1,042,278)

Whenever a timed profit participation is entered into a given month, then any automatically calculated profit in that month is removed, and the total profit payable to the source over the total project is adjusted up or down depending upon the amount entered. In other words, the total amount of profit paid to the current source will not be maintained at its originally calculated value prior to a timed profit participation value being entered.

Timed Finance events

Where timed finance events are active in existing version four files that are upgraded to version 4.05, the inputs for timed finance events are retained and the timed finance events functionality retained - until you remove (zero out) all such entries.

If you remove all timed finance events, this area of functionality disappears; it is no longer available within a file, and is replaced by the Inter-Source Transactions feature.

See Also

Inter-Source Transactions

Reporting Structured Finance

You can view and print the Funding Source Cash Flow report from the Structured Finance setup window by clicking the **All Sources** button as shown below.

Note: There are also a number of Finance related reports contained in the main reporting area of the program – see the Report Setup area accessible in the main workspace of Developer.

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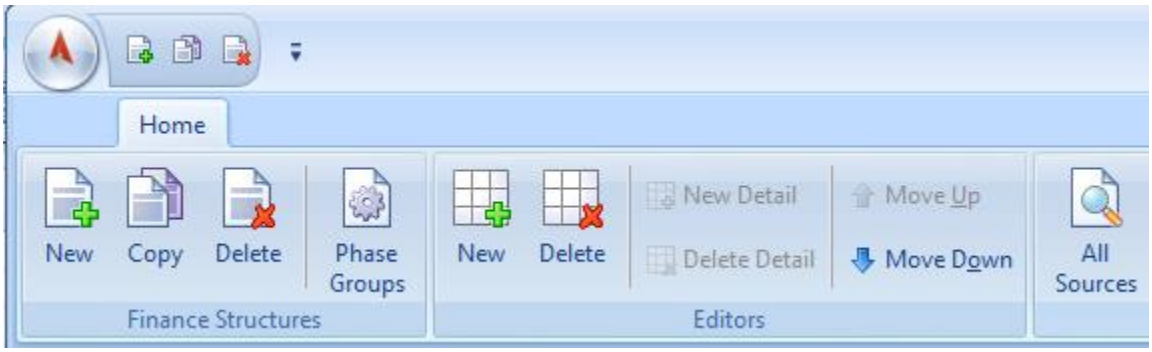

This will open the Funding Source Cash Flow report:

FUNDING SOURCE CASH FLOW — **LICENSED COPY**

Argus Developer Version 6
Mixed Use Project with Finance Structures
(Merged Phases)

Page A 1

Source of Funds	Developer
Type	Equity
Finance Structure	FS - All Phases

	12 Mar 2013	24 Mar 2014	36 Mar 2015
Capital Contribution			
Timed Contribution: Project	0	0	0
Auto. Project Contribution	(1,000,000)	0	0
Total Contribution	(1,000,000)	0	0
Interest	0	0	0
Capital Repayment			
Timed Repayment: Project	0	0	0
Auto. Repayment	0	0	0
Total Repayment	0	0	0
Closing Balance	(1,000,000)	(1,000,000)	(1,000,000)
Profit Distribution			
Timed Profit Participation	0	0	0
Total Profit Participation	0	0	0
Net Cash Flow (IRR)	(1,000,000)	0	0
Cumulative Net Cash Flow	(1,000,000)	(1,000,000)	(1,000,000)

Tax on Profit Distribution

ASSUMPTIONS		ANALYSIS	
Contribution Order	1	Contribution	$1,000,000
Contribution	$1,000,000	Timed Repayment	$0
Contribution	$0	Auto Repayment	$1,000,000
Repayment Order	4	Total Repayment	$1,000,000
Interest Rate	N/A	Peak Financing Amount	$1,000,000
		Profit	$2,817,093
		IRR	58.3%
		Return on Equity	281.7%

CASH ON CASH	As at May 2014
Annual Return	* 416.4%

You can print, view and write to PDF/Word/HTML individual cash flow statements for each source in the Finance Cash Flow area, by right-clicking any cash flow cell for a source, then making the desired selection from the list below:

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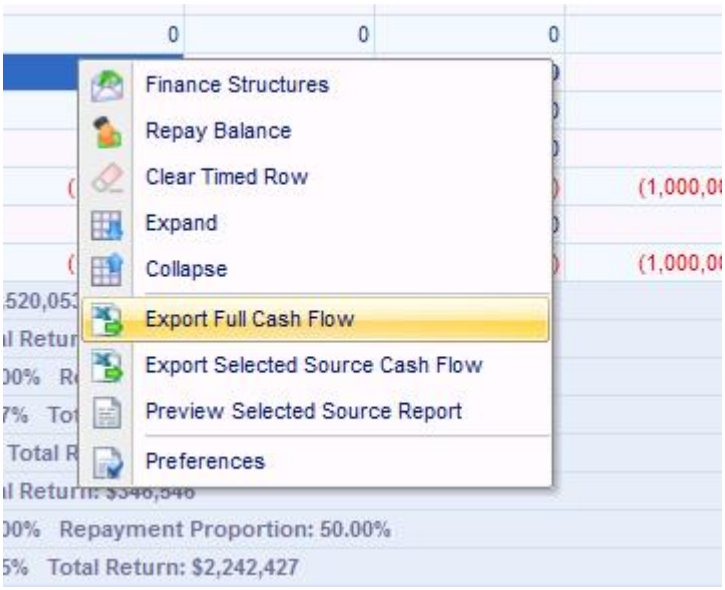
Exporting to Excel

To export the finance cash flow to Excel, right-click on a cell in the finance cash flow area, then select from the export choices on the drop-down menu as shown below:



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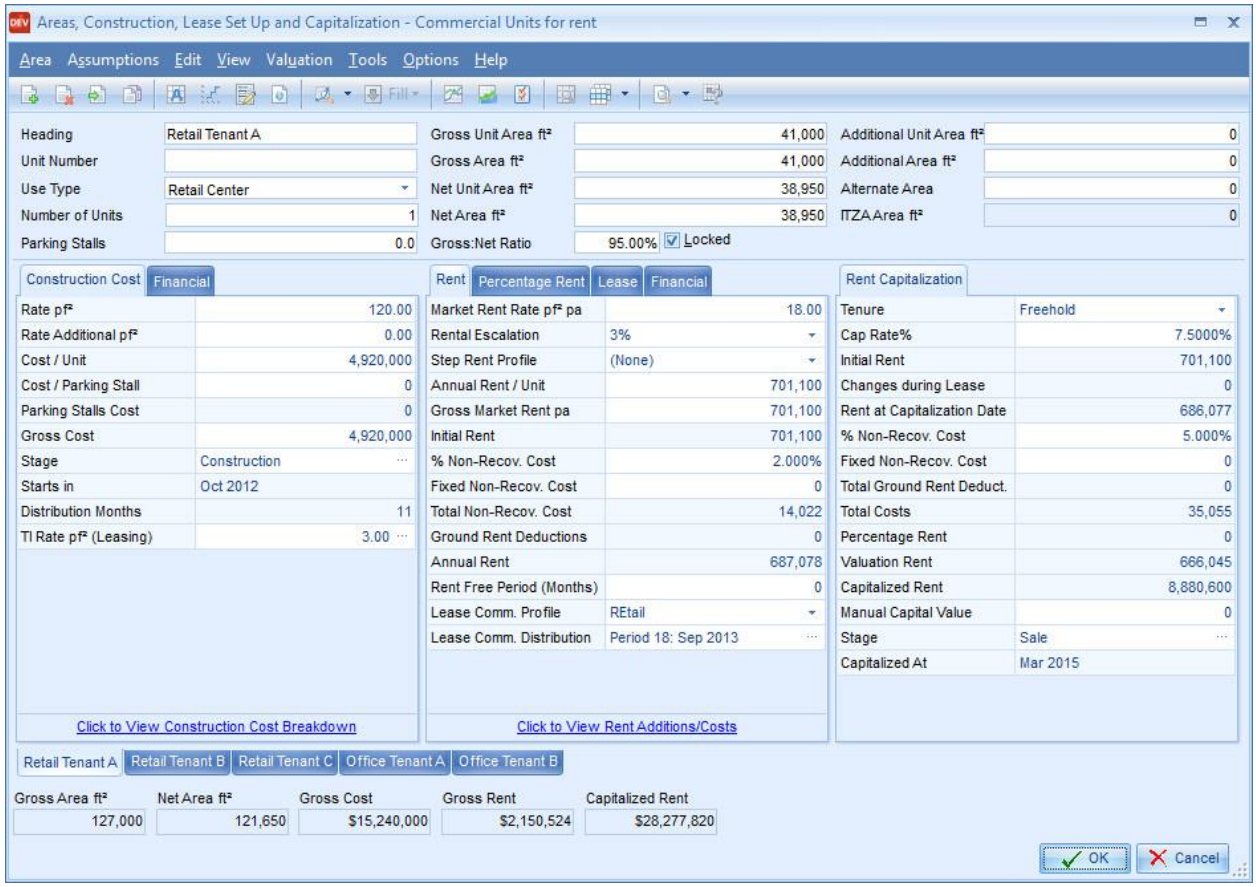
Capitalized Rent and Sales

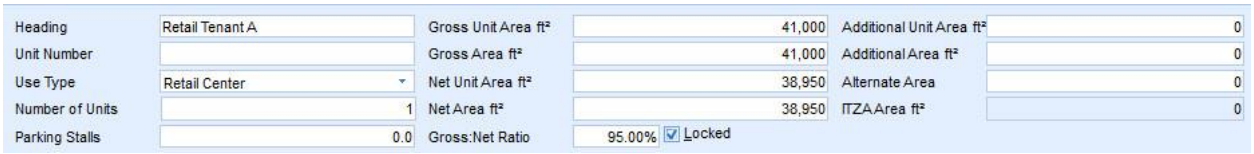
Capitalized Rent and Unit Sales

To enter a schedule of tenants and capitalized rent, click on the **Capitalized** Rent command in the Definition group on the Home tab.

When the Area, Construction and Rent schedule appears, enter the information required relating to gross and net floor space, construction, rent rates and yield.



Unit and Floor Space Information



Heading: You can label each area with a heading of up to 60 characters in length.

Unit Number: Reference number.

Use Type: A use class description for this area record. The list of use classes can be customized. See Use Classes.

Number of Units: The number of units built and leased or sold.

Parking Stalls: The number of parking stalls allocated to the units in this area record. This field allows a single decimal in the input so that non-standard sized parking stalls can be modelled.

Gross Unit Area: The gross, or buildable, area per unit. This can be calculated from the Gross Area / Number of Units, if left blank.

Gross Area: The total gross, or buildable, area. This is normally calculated from the Gross Unit Area x Number of Units.

Net Unit Area: The net leased, or sellable, area per unit. This can be calculated from the Net Area / Number of Units, if left blank.

Net Area: The total net leased, or sellable area. This is normally calculated from the Net Unit Area x Number of Units.

Additional Unit Area: The additional unfinished area per unit used in the calculation of gross construction costs. This can be calculated from the Additional Area / Number of units, if left blank.

Additional Area: The total additional unfinished area used in the calculation of gross construction costs. This is normally calculated from the Additional Unit Area x Number of units. The additional area is not included in the gross or net areas for any other calculation purposes.

Alternate Area: The alternate area is a field available for your own use to describe any area or unit information. It is not included in any other area totals but can be used in miscellaneous cost calculations.

Gross:Net Ratio: The ratio of the disposal (net) area to construction (gross) area is shown here. This field can be locked at a fixed value so that all floor areas will be calculated with reference to it.

Construction Costs

Base construction cost for each unit may be entered using a construction rate, unit rate or the gross cost. Alternatively, you can enter a detailed breakdown of the costs for this particular unit. See Construction Cost Breakdown below for more information.

When you enter the construction rate/ft², the Cost/Unit and Gross Cost will be calculated from the rate x gross area. For any combination of inputs, other cost fields will be calculated automatically. For example, if you enter the gross cost, the construction rate and Cost /Unit will be calculated automatically using the number of units and the gross area.

Construction costs will be distributed automatically over the length of the construction stage entered in the Time Scale & Phasing screen. You can change this on either a global basis, or for individual area records.

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Rate pf²: The base construction rate used to calculate the gross cost. The rate can be expressed in either square feet, or square meters, depending on the units of measurement setting in the Preferences screen.

Rate Additional pf2/pm2: The rate used to calculate an additional unfinished cost based on the Additional Area.

Cost / Unit: The gross cost per unit, which includes cost based on the Net Unit Area + Additional Unit Area. The cost per unit may be entered directly only when the Additional Unit Area is zero, otherwise it is calculated automatically from other inputs.

Cost / Unit: Gross Unit Area x Rate + Additional Unit Area x Additional Rate

Cost / Parking Stall: The unit cost for each parking stall.

Parking Stalls Cost: The total cost for all parking stalls.

Gross Cost: The gross cost which includes costs based on the Net Area + Additional Area + Parking Costs. The gross cost may be entered directly only when both the Additional Area and Parking Cost are zero, otherwise it is calculated automatically from other inputs.

Gross Cost: Gross Area x Rate + Additional Area x Additional Rate + Parking Stalls x Cost / Parking Stall

Stage: The development stage to which the construction cost is attached. This defines when the cost starts and for how long it is distributed in the cash flow. The timing and distribution can be changed by clicking the ellipsis button to use the Data Distribution screen. This topic is described in Timing and Distribution.

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Starts In: This read-only field shows the date on which the gross cost starts in the cash flow.

Distribution Months: This read-only field shows the number of months over which the gross cost is distributed in the cash flow.

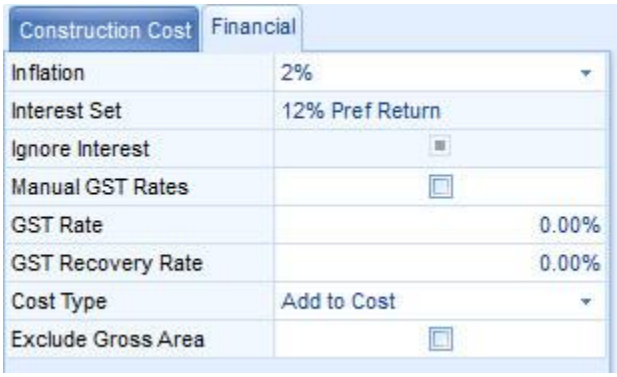
TI Rate pf² (Leasing): The rate per square foot for Tenant Improvements. The cost is calculated as a single, non-distributed amount timed to the lease start date. Change the timing and distribution by clicking the ellipsis button.

TI % Rate (Leasing): The % of rent payable for Tenant Improvements. The cost is calculated as a percentage of the rent payable over the first term of the lease. It is calculated as a single, non-distributed amount timed to the lease start date. Change the timing and distribution by clicking the ellipsis button.

TI Cost (Leasing): The fixed cost for tenant improvements. The cost not distributed and timed to the lease start date. Change the timing and distribution by clicking the ellipsis button.

Construction Costs - Financial

Cost inflation can be included, together with Interest and sales tax using the Financial tab.



Cost Inflation: Inflation is calculated on the gross cost by selecting a set of inflation rates from the **Inflation** drop-down list. The rates may be static, or may vary over time. When you add a new cost, inflation is not automatically applied – you must select a set of rates from the drop-down list. To create sets of inflation rates, click the **Inflation Rates** command, or select **Assumptions > Inflation and Escalation** from the menu. If the inflation rates vary over time, this will be indicated by showing *var.* in the **Inflation** field.

Construction Interest: If you are using the Basic Interest (Interest Sets) finance type, you can apply different interest rates to each construction cost. Structured finance does not allow the selection of interest rates for individual costs. Interest is calculated on a cost by selecting a set of interest rates from the **Interest Set** drop-down list. The rates may be static, or vary over time. When you add a new cost, a default interest set selected automatically. To create sets of interest rates, click on the **Interest Rates** command, or select **Assumptions > Interest** from the menu.

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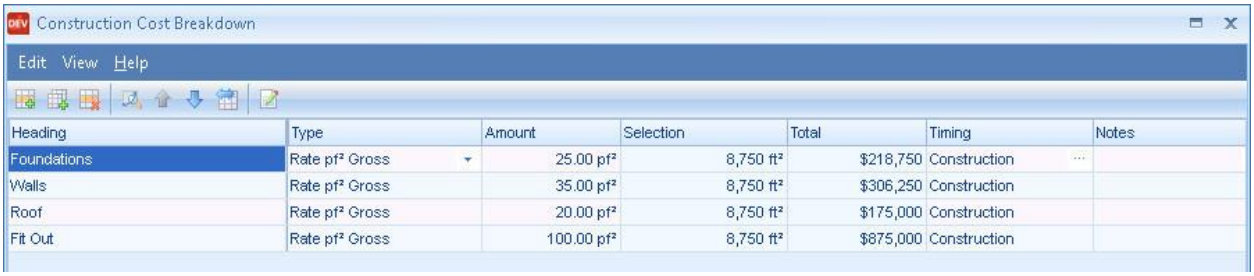
Sales Tax: Sales tax on the gross cost may be calculated and recovered using the **GST Rate** and **GST Recovery Rate** fields. By default, the same rates are used for calculating sales tax on the tenant improvement costs, tenant void costs and leasing commission costs. To use different sales tax rates, check the **Manual GST Rates** option. You will now be able to apply different rates in the GST screen or the Cash Flow Row Properties screen. To set the rules that determine how sales tax is calculated and recovered, use the **GST** command in the Finance group on the Home tab.

Exclude Gross Area: For any costs that are based on the total gross area, you may want to exclude specific area records. To do this, check the **Exclude Gross Area** option.

Construction Cost Breakdown

The Construction Cost Breakdown schedule allows you to easily enter detailed lists of construction elements for each area record. The Breakdown allows an unlimited number of elements to be defined using a variety of different calculation types.

When a schedule of detailed cost elements has been entered, the construction cost rates and costs on the Construction tab will be replaced by the total cost from the breakdown schedule. It will not be possible to enter data into these fields until the breakdown schedule is cleared, or the total breakdown cost is zero.



To add a new breakdown element

1. Click the **Add New Cost** command.
2. Enter a heading for the cost and choose a **Type**.
3. Enter the rate for this type into the **Amount** field.
4. Select any source costs by clicking the **Selection** ellipsis button.
5. Change the default timing, if required, using the **Timing** ellipsis button.
6. Enter any notes about this cost.

To create a default schedule of breakdown elements

If you have a standard list of cost elements that are used more than once in a project, you can simplify the entry process by creating a template which can be used when required in any area record. The template can contain a list of cost element names with a cost type for each - (fixed, related percentages and so on), each of which can be overridden when attached to an area record.

1. Click the **Edit Default Cost Breakdown** command.

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2. Add new cost elements by clicking the **Add** command.
3. Enter a name and select a cost type for each item.
4. Click the **OK** button.

To Add a default schedule of breakdown elements

1. Click the **Add Default Costs** command.
2. If you have not created a default breakdown schedule, you will be prompted to create one first.
3. If you have a default schedule already defined, the default cost elements will be added to the breakdown schedule.
4. Enter the rate and make any source cost selections using the Selection ellipsis button.
5. Click the **OK** button to close the breakdown schedule.

To apply inflation or sales tax

1. Click the **Show Extra Detail Columns** command.
2. Select inflation rates, per item, from the **Inflation** drop-down list.
3. Enter sales tax and recovery rates, per item, in the **GST Rate** and **Recovery Rate** fields.

Annual Rent

Annual rent for each tenant may be entered using a rent rate, market rental value (MRV)/unit per annum or the gross market rental value (MRV) per annum. You may elect to enter these rates in terms of monthly amounts – choose **Options > Monthly Rent Rates** to do this.

When you enter the annual rent rate, the MRV/Unit and the Gross MRV is calculated from the rate x net area. For any combination of inputs, other rent fields will be calculated automatically. For example, if you enter the gross MRV, the rent rate and MRV/Unit will be calculated automatically using the number of units and the net area.

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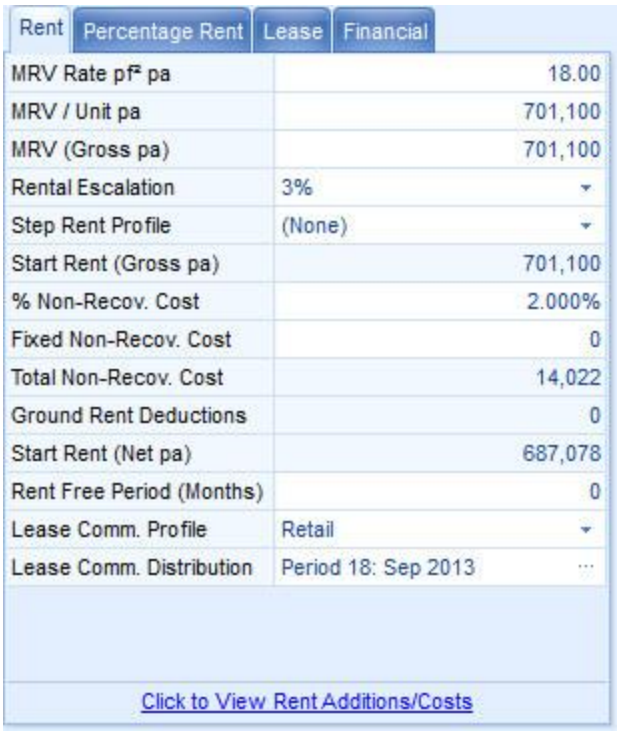

Rental Escalation: Escalation can be applied using the by selecting a set or escalation rates from the **Rental Escalation** drop-down list.

Step Rent Profile: Where there are fixed rent steps agreed between a landlord and tenant, you can select from a number of stepped rent profiles. Please see Stepped Rents for more information.

%Non-Recov. Cost/Fixed Non-Recov. Cost: Where there is a Service Charge to be deducted from the tenant's rental income, enter a % Non-recoverable cost and/or a Fixed Non-recoverable cost. These costs affect the rental income in the cash flow but not the rent used in the capitalization.

Total Non-Recov. Cost: This is the total of both the % Non-recov. cost and Fixed Non-recov. cost amounts.

Ground Rent Deduction: This is the ground rent deducted from annual gross rent, producing the valuation rent figure.

Start Rent (net pa): Start Rent is the rent that will be used to calculate the capital value. It is calculated from the gross rent, inclusive of escalation, less any non-recoverable costs and ground rent deductions. When the Tenant's True Income Stream option is checked, the Start Rent takes rent reviews into account.

Rent Free Period (Months): A rent free period can be granted to a tenant by filling in the Rent Free Period field. The loss of income can be represented in several ways. For more information, see Rent Free Cost Methods.

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Lease Comm. Profile: Leasing commissions paid to an agent for leasing services are entered here. Use the drop-down to select a profile that contains rules for calculating the leasing commission for this tenant.

For more information about setting up leasing commission profiles, see Leasing Commission Profiles.

Rent Additions/Costs

When you want to incorporate recoverable and non-recoverable costs for a group of tenants, use the Rent Additions/Costs schedule.

Click on the **Click to View Rent Additions/Costs** hyperlink.

An unlimited number of recoverable and non-recoverable items may be entered. Enter a recoverable cost as a Revenue type and enter a non-recoverable cost as a Cost type.

To	Do this
Add/Delete new rows	Use the **Add** and **Delete** buttons.
Change Revenue/Cost	Click in box and select from drop-down.
Change Type	Click in the field and choose from one of following options: 1. Fixed Amount/Unit/Year. 2. Fixed Amount/Area/Year. 3. Amt/ft^2/yr x Net Area (or Amt/m^2/yr x Net Area). 4. Amt/ft^2/yr x Gross Area (or Amt/m^2/yr x Gross Area). 5. Amt/ft^2/yr x Alternate Area (or Amt/m^2/yr x Alternate Area). 6. % of Base Rent 7. % of Gross Rent
Apply to different area/units from the area schedule	Click into **Selection** and apply to a tenant.
Apply growth to rows	Click into **Growth** field and select from menu of growth sets (previously defined).
Apply private or tenant capitalization rate	Click into the **Capitalization** field and choose either *Use Private Rate* or *Use Tenant Rate*. If choosing **Use Private Rate,** enter rate to the right of box.

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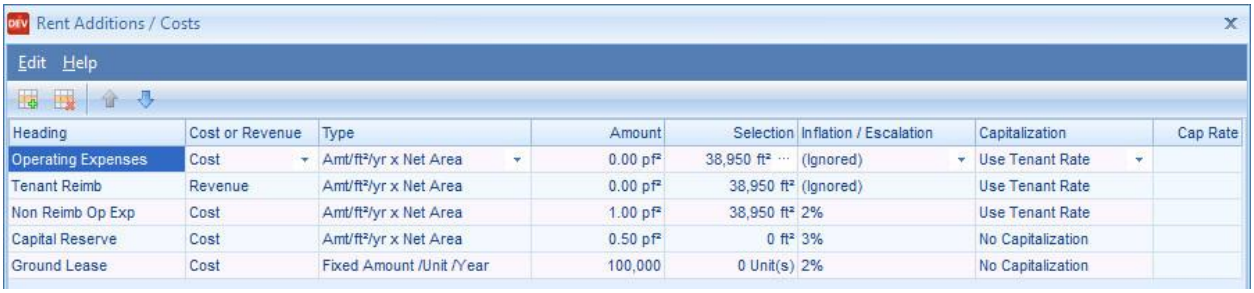

Percentage Rent

Percentage rents for retail properties can easily be entered using the Percentage Rent tab.

Sales Volume pa: Enter the anticipated sales volume for a retail tenant. The sales volume pf² pa will be calculated automatically if a net area has been entered.

Sales Volume pf² pa: Enter the sales volume rate pf² pa when you don't know the sales volume pa.

Rent Rate: Enter the % of sales volume to be used to calculate the rent receivable from sales volume.

Breakpoint Type: The breakpoint determines the threshold at which % rent is receivable.

There are three breakpoint types:

Zero Breakpoint

The % rent rate multiplier is applied to the entire sales volume p.a.

Example: 1,000,000 Sales Volume pa * 7% = 70,000 pa.

Natural Breakpoint

This is sometimes used where the total rent comprises a core, or base, income and an additional percentage rent. The lease may guarantee the landlord a certain percentage of the total income subject to a minimum core rent that can move over time. This core rent is calculated as an equivalent value in terms of Sales Volume. This equivalent value forms the natural breakpoint.

The Natural Breakpoint will move as core rents increase and decrease.

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Example: 1,000,000 Sales Volume pa, 8% 10,000 standard rent.

If the landlord is entitled to 8% of Sales Volume, the 10,000 standard rent would be worth 125,000 to him/her, if it were expressed as Sales Volume. This 125,000 is the natural breakpoint.

10,000 core rent / 8% = 125,000 natural breakpoint.

Only sales volume in excess of the breakpoint is valued as percentage rent.

(1,000,000 Sales Volume - 125,000 Natural Breakpoint) * 8% = 70,000 percentage rent

The total rent payable is the 10,000 core rent plus 70,000 turnover rent.

Arbitrary Breakpoint

Only sales volume in excess of the arbitrary breakpoint is used to calculate the percentage rent. Arbitrary breakpoints are entered as amounts per annum, per unit area.

Example: 1,000,000 Sales Volume, 8% and 200,000 Arbitrary Breakpoint.

(1,000,000 sales volume - 200,000 arbitrary breakpoint) * 8% = 64,000.

Arbitrary Break: These fields are available when the arbitrary breakpoint type is selected.

% Rent Escalation: The Sales Volume may be subject to escalation. Select *Ignored* from the drop-down list to ignore growth, or select an escalation rate set.

Lease Options

Where a development is retained as an investment or where pre-lets are achieved, the information on the Lease tab will generate a flow of rental income in the cash flow. To enable the flow of rent from the lease details, select **Valuation** from the main menu then select **Tenant's True Income Stream**.

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Lease Start Date: The period from which rent will start to flow in the cash flow. If a rent-free period has been granted, the number of months will be added to the lease start date to determine the date on which the rent will start to flow.

Note: To adjust the lease start date, click on the ellipsis button.

To	Do this
Make the lease start date commence at the beginning of another stage.	Use the Stage and Phase settings in the timing window to select another stage.
Make the lease start date commence on a specific period.	Use the **Period** option to select the date in the timing window.
Make the lease start date commence on a specific date.	In the Timing window select *Date* then use the date picker to select the date.

Term: This is the length of lease in years and months.

Payment Cycle: Frequency of rent payments - either monthly, quarterly, semi-annual or annual in advance.

Review Cycle: Rent review cycle in years.

Align to Sale Date: Forces the flow of income in the cash flow to run up to the sale of the property when the lease expires before the sale date.

Void Cost Rate pf2 pa (or **Void Cost Rate pm2 pa**)**:** Costs incurred during initial letting period, measured from the start date of the 5th development stage of the current phase until the let comes into effect; and during periods of vacancy between terms if a leasing period (entered in whole months) has been defined.

Renew this lease: For short-term leases, renew the lease by checking this option.

Leasing Period: The void period, in months, for all renewal terms.

Rent Free Period (Months): The free rent period, in months, for all renewal terms.

TI Rate pm2/pf2 (Renewal): Tenant improvement rate for all renewal terms. Cost is based on net area and is triggered on each renewal term.

TI Cost (Renewal): Fixed tenant improvement cost for all renewal terms.

Rent - Financial

You can specify interest and VAT rates on the Financial page:

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Interest: If you are using the Basic Interest (Interest Sets) finance type, you can apply different interest rates to each tenant's rental income and capital value. Structured finance does not allow the selection of interest rates for individual tenants. Interest is calculated on a tenant's rent by selecting a set of interest rates from the **Interest Set** drop-down list. The rates may be static, or vary over time. When you add a new tenant, a default interest set selected automatically. To create sets of interest rates, click on the **Interest Rates** command or select **Assumptions > Interest** from the menu.

Sales Tax: Sales tax on the rental income and capital value may be calculated and recovered using the **GST Rate** and **GST Recovery Rate** fields. By default, the same rates are used for calculating sales tax on the rental income, percentage rent, capitalized rent, operated asset revenues and expenses, and rent free costs. To use different sales tax rates, check the **Manual GST Rates** option. You will now be able to apply different rates in the GST screen or the Cash Flow Row Properties screen. To set the rules that determine how sales tax is calculated and recovered, use the **GST** command in the Finance group on the Home tab.

Rent Capitalization

Rental income from a tenant's lease is capitalized using the Rent Capitalization tab.

Tenure: Select from *Freehold* or *Leasehold* tenure in the drop-down list. When *Leasehold* is selected, additional options are available on the Ground Lease tab.

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Cap Rate: The Cap Rate is used to capitalize the tenant's income.

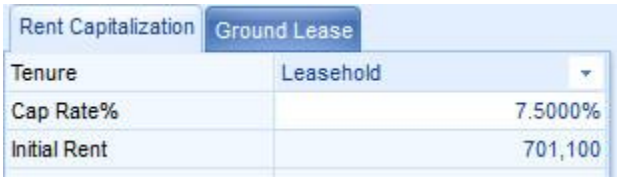
Manual Capital Value: Where a capital value has been agreed for a tenant, it can be entered directly into this field. Any value entered into this field will override the calculated value and will be used in the valuation of the project.

%Non-Recov. Cost/Fixed Non-Recov. Cost: Where there is a service charge to be deducted from the tenant's rent used in the capitalization, enter a percentage non-recoverable cost or a fixed non-recoverable cost. These costs do not affect the rental income in the cash flow, only the rent used in the capitalization.

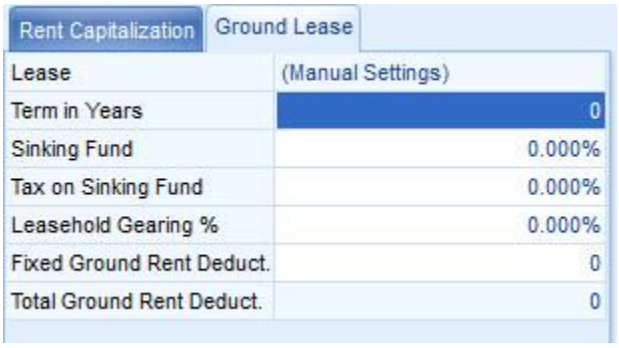
Timing of Sale: The sale date, or cap date, can be changed here by clicking the **Stage** ellipsis button. The timing is usually defaulted to the beginning of the sales stage.

Leasehold Properties

To enter a Leasehold tenure for a tenant, select **Leasehold** from the **Tenure** drop-down list:



When the Leasehold tenure is selected, a new tab - the Ground Lease tab – is shown.



Lease: A master ground lease profile may be selected here. See the Master Ground Lease topic.

Term in Years: The length of the ground lease in years. A lease term of 0 years will be interpreted as perpetuity when calculating the Years Purchase factor.

Sinking Fund and Tax: The sinking fund and tax on sinking fund.

Leasehold Gearing: If the property has a geared ground rent, enter the percentage into the **Leasehold Gearing %** field. The geared amount will be deducted from the MRV before capitalization.

Fixed GR Deduction: If the property has a fixed per annum ground rent, enter the amount into the **Fixed Ground Rent Deduction** field. The amount will be deducted from the MRV before capitalization.

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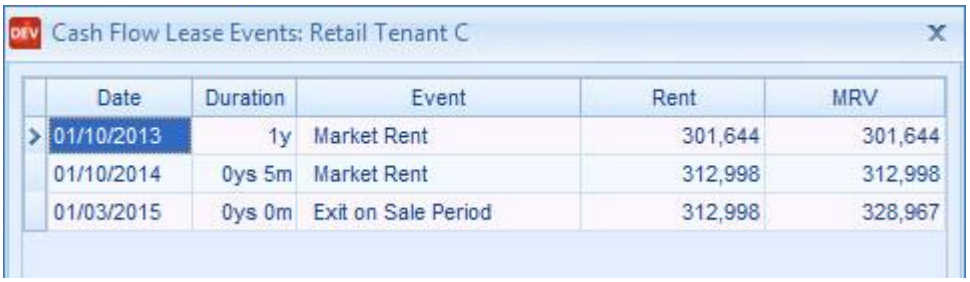
Lease Events

Each tenant entered into the Cap Rent schedule has its own cash flow lease events table created for use in the rent and capitalization calculations. Use the **Lease Events** command to view a schedule of rents and MRVs, inclusive of escalation.

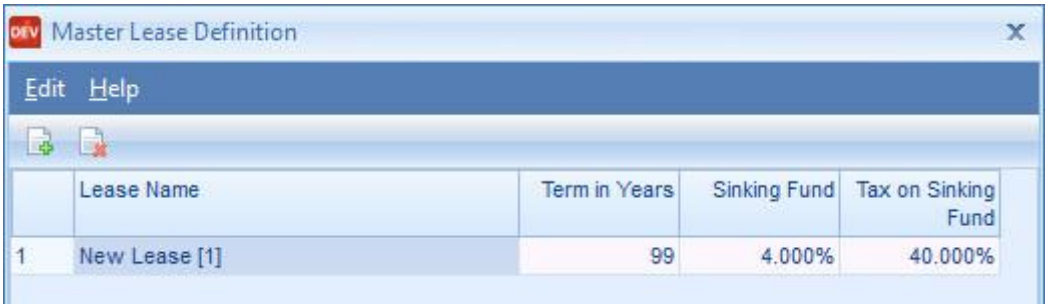


Date	Duration	Event	Rent	MRV
01/10/2013	1y	Market Rent	301,644	301,644
01/10/2014	0ys 5m	Market Rent	312,998	312,998
01/03/2015	0ys 0m	Exit on Sale Period	312,998	328,967

The Rent and MRV are usually the same at the Leasing and Review dates (though this may not be the case if, for example, a stepped rent profile has been applied). The Exit on Sale Period event shows the MRV plus any escalation on the rent from the last Rent Review.

Master Ground Lease

You can save time when entering leasehold properties by setting up a Master Ground Lease. Then, when entering each tenant's details, you can attach the Master Ground Lease. The Master Lease Definition editor lets you enter a lease name, term in years, sinking fund and tax on sinking fund.



	Lease Name	Term in Years	Sinking Fund	Tax on Sinking Fund
1	New Lease [1]	99	4.000%	40.000%

To create a Master Lease

1. Click the **Master Ground Lease** command.
2. Enter a name for the master ground lease.
3. Enter the term in years, **Sinking Fund %** and Tax rate on **Sinking Fund %**.
4. Click the **OK** button.

Any changes that you made to a master ground lease will be automatically reflected in the Rent Capitalization section. The tenant will show the revised ground lease terms and the capital value will be recalculated.

To assign a Master Lease to a tenant, close the Master Lease Definition editor and choose a lease name from the **Lease** drop-down list on the Ground Lease tab. The terms

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will be copied to the tenant record and you can enter any ground rent deductions for the ground lease:

Stepped Rents

At the grant of a new lease, terms agreed between landlord and tenant may include provision for stepped rents - fixed uplifts in rent at specified intervals. On the next event (expiry/renewal) following the defined stepped rents, it is assumed that market rent will resume.

Stepped rents apply only during the first term of a lease (in other words - not to a renewal lease), and when tenant's income flow is activated during the development. Stepped rents cannot be set for dates after the project end date.

Stepped rents are not subject to escalation but may be subject to ground rent deductions.

Stepped rent profiles are created in the Stepped Rent Profiles window and attached to a tenant using the **Step Rent Profile** drop-down list in the Rent tab.

To create a stepped rent profile

1. Click the **Stepped Rent Profiles** command.
2. Enter a name for the profile.
3. Enter the Base Date – the date on which the first step begins.
4. Fill in the profile table with the date, duration and calculation type for each step.

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The table below sets out the five types of rent step type:

Step Type	Stepped Rent Basis
Rate pf^2 (or pm^2).	Net floor area x Rate.
Rate pf^2 (or pm^2) adjustment.	Net floor area x (previous rate +/- rate adjustment).
$Rent pa/unit.	$Rent per annum.
$Rent pa/unit adjustment.	Previous rent +/- rent adjustment.
Resume Market Rent.	Market rent. This step type effectively terminates the stepped rents and reverts to the annual rent defined in the Rent form.

A net floor area must be entered for the tenant for Rate pf2 (or pm2) and Rate pf2 (or pm2) adjustment step types.

Leasing Commission Profiles

To create a leasing commission profile

1. Click the **Leasing Commission Profiles** command.
2. Enter a name for the profile.

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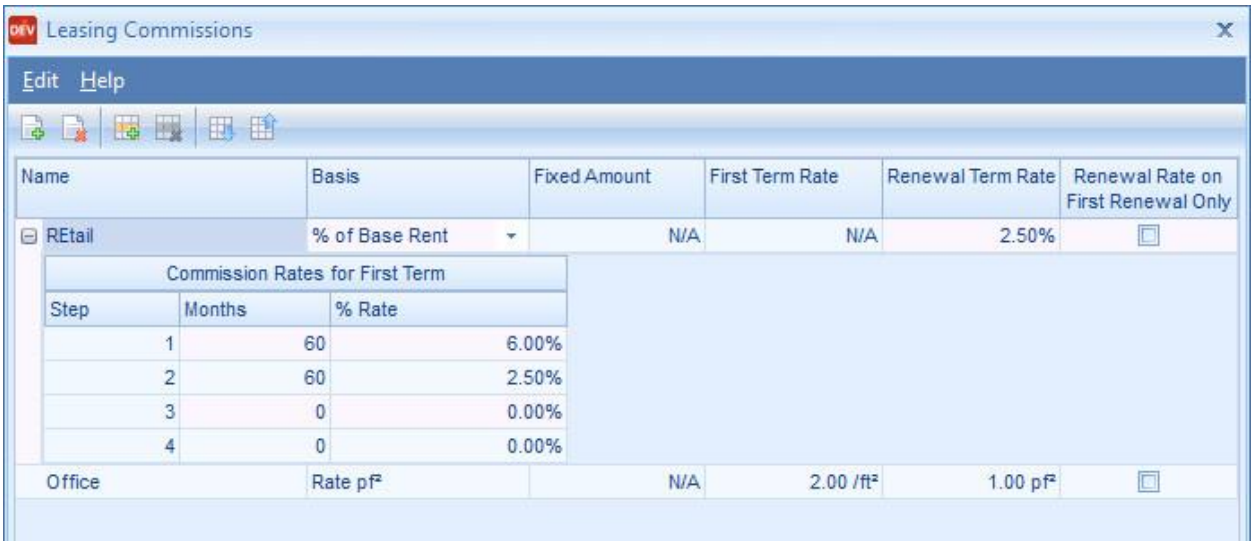
3. Select the commission basis from the **Basis** drop-down list. The four basis types are explained below.
4. Fill in the remaining fields – fields will be enabled depending on the **Basis**.
5. Enter the number of months and rates into the commission table for % Base Rent and % Gross Rent types.



Commission Basis

Fixed Amount: On completion of the letting, a fixed amount is paid by the Developer/Landlord.

Rate pm2 (or Rate pf2): On completion of the letting, a rate per square meter or foot is paid. There is also the option of entering a different rate (based on Net Area) if the lease renews.

% of Base Rent: On completion of the letting, you are able to define several steps with different rates if necessary. You can also enter a renewal rate for the entire term.

This uses the total base rent over:

a. First term of lease

b. Subsequent renewal terms

Base Rent includes turnover but excludes Rent Additions/Costs.

% of Gross Rent: On completion of the letting, you are able to define several steps with different rates if necessary. You can also enter a renewal rate for the entire term.

This uses Total Rent over:

a. First term of lease

b. Subsequent renewal terms

Gross Rent includes turnover and Rent Additions/Costs.

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Note: For % of Base Rent and % of Gross Rent types, additional options are available on the Calculation tab in the Assumptions window. These options specify whether the Leasing Commission is calculated before or after the deduction of non-recoverable costs from the rent.

First Term Rate: For the Rate pf² type, this is the rate that is applied to the net area for the first term of the lease.

Renewal Term Rate: For the Rate pf², % Base Rent and % Gross Rent types, this is the rate that is applied to the renewal term of a lease.

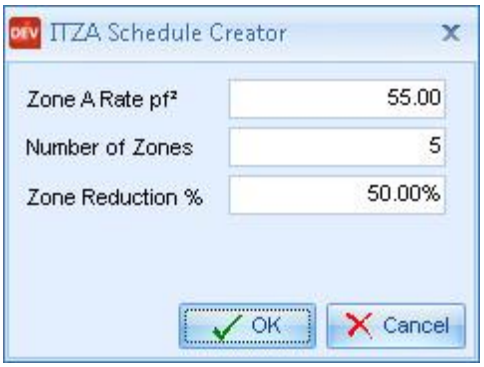
Renewal Rate: On First Renewal Only Select this option to calculate leasing commissions for the first renewal term only. All subsequent renewal terms will be ignored for purposes of this calculation.

ITZA Definition for Retail Units

You can quickly enter area definitions for retail shop units using the ITZA calculator. Each of the area definitions in the area schedule can be linked to the ITZA calculator by moving to the area and clicking on the **Retail Zoning (Area ITZA)** button on the tool bar.

To create a new ITZA schedule

1. Click the **Retail Zoning (Area ITZA)** command/
2. Enter the Zone A rate, Number of Zones and the Zone Reduction % for each successive zone.
3. Click the **OK** button.



A blank ITZA schedule will now be created. Enter the areas for each zone to create the ITZA Rent.

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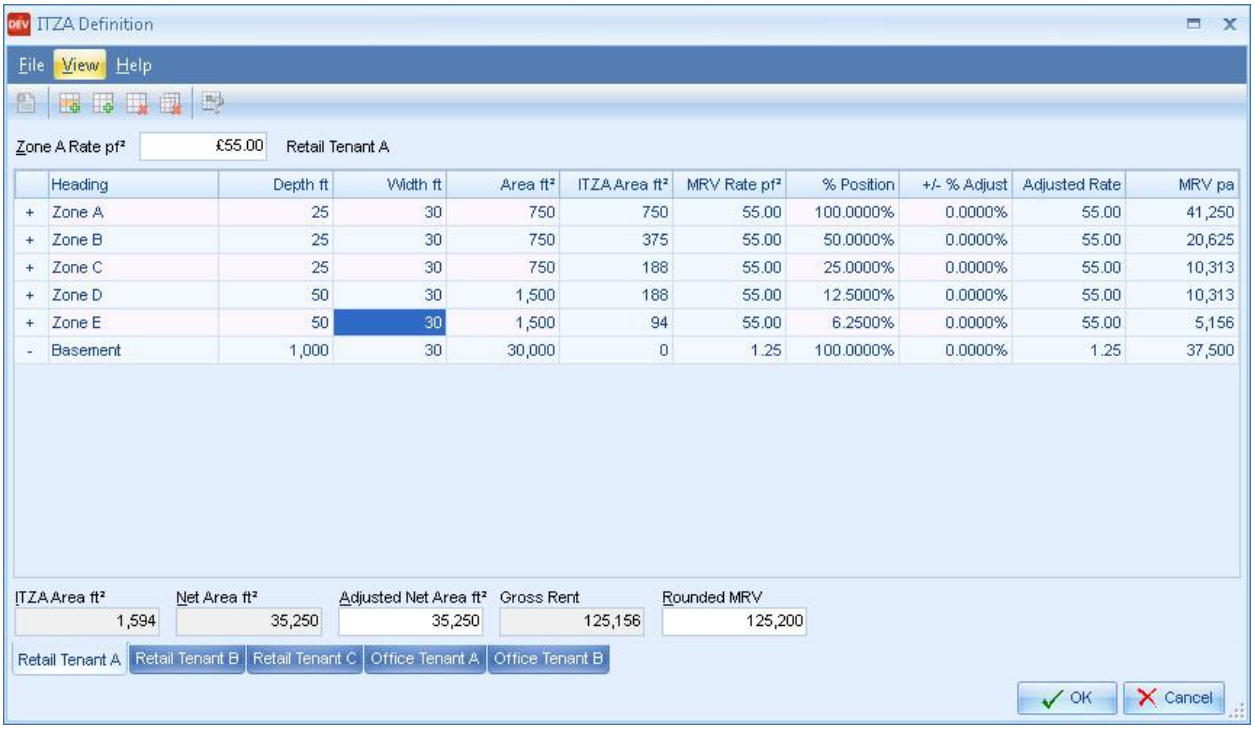

Zone A Rate: You can change the Zone A rate at any time by clicking into the **Zone A Rate** field and typing a new value. When the Zone A rate is changed, all ITZA area values are recalculated using the new rate. The new total Rounded MRV is calculated, replacing any manual changes. Any non-ITZA lines in the schedule will be unaffected.

Heading: The heading for each row is generated automatically. You can override any heading by typing a new name.

Area: You can specify the size of a zone by entering either its depth and width, or its total area. The rental value will be calculated by multiplying the area by the Zone A rate together with the % Zone reduction and the % Adjustment. To display columns for zone depth and width, click on the **Show dimensions** button.

MRV Rate: The MRV rate is locked for ITZA rows and is generated from the Zone A Rate. However, for non-ITZA rows, you can enter the MRV rate.

% Position: The % position indicates the reduction in value for each zone based on its position in the unit. This value will be filled in automatically when new schedules are created. When you add individual lines, you must enter a value.

% Adjust +/-: You can make adjustments to any row by entering a value into the % Adjust cell. When an adjustment has been entered, the Adjusted MRV rate will be calculated and used to determine the rental value. Typically, you would use this for return frontages.

Editing the ITZA Schedule

To add a new Zoned row

1. Click on the Add zoned line button:

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2. Enter the area, either as a width and depth, or the total area.
3. Enter the zone's % Position. You should override the default value of 100%.
4. The MRV for this line will be calculated automatically from the Zone A rate.

To add a new non-zoned row

1. Click on the **Add non-zoned line** button:
2. Enter the area, either as a depth and width, or the total area.
3. Enter the MRV rate.
4. The zone's % position will be entered as 100%. You can override this.
5. The MRV will then be calculated.

To delete any row

1. Select the row that you want to delete and click on the **Delete line** button:
2. The schedule will now be recalculated to reflect the loss of value.

To delete all rows in the schedule

1. Click on the **Clear schedule** button

All rows will be deleted and the totals set to zero.

To create a new ITZA schedule

1. Click on the **Create zones** button
2. Follow the steps described in To create a new ITZA schedule

To round the MRV

1. Click into the **Rounded MRV** field.
2. Enter the new MRV.

To round the Net Area

1. Click into the **Adjusted Net Area** field.
2. Enter the new area.

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Unit Sales

To create a schedule of non-capitalized units for sale, select the **Sales Areas > Unit Sales** command in the Definition group on the Home tab**.**

To model an estate of single family residential units, select the **Sales Areas > Single Unit Sales** command in the Definition group on the Home tab.

To model a residential apartment unit, select the **Sales Areas > Multiple Occupancy Unit Sales** command in the Definition group on the Home tab.

The unit and floor space details and construction costs are entered in the same way as for capitalized units. It is not necessary to enter gross or net areas for unit sales – the program can work with only unit costs and values.

See Also
Construction Costs

Sales

The sale price for each unit may be entered using the sales rate, sales/unit or gross sales price. When you enter the sales rate, the sales/unit and the gross sales price is calculated from the sales rate x net area. For any combination of inputs, other sales fields will be calculated automatically. For example, if you enter the gross sales price, the sales rate and sales/unit will be calculated automatically using the number of units and the net area.

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Timing and Distribution of Net Sale Value

The net sales value is assumed to be placed as a single amount at the start of the sales development stage in the time scale & phasing area. The timing and the distribution can be overridden on an area by area basis using the Data Distribution screen, which is opened by clicking on the **Stage** ellipsis button.

The advantage of linking sales values to a stage, is, that if you change the stage in the Time scale & Phasing area, all sales values linked to it will be updated automatically.

The two fields titled **Starts In** and **Distribution Months** show when the timing begins, and over how many months the sales value is distributed. These are read-only fields.

Deposits/Pre-Sales

Residential developers will typically take a deposit for an apartment or house up front, with the remainder paid on completion of the building's construction. The value of the units will be distributed in two sections: a period over which deposits will be received and a single amount for the remainder.

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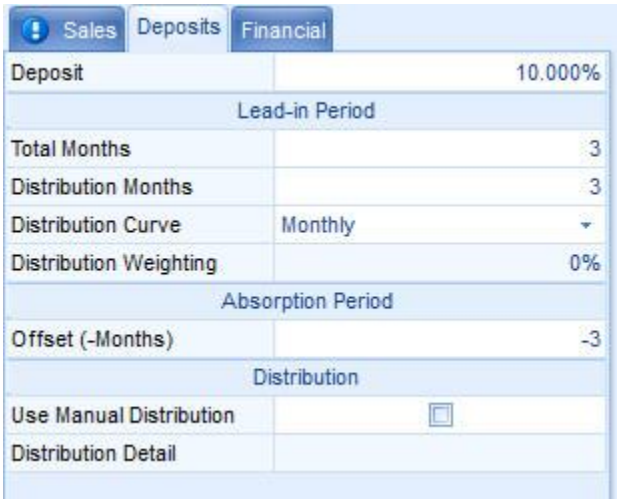

Deposit %
Deposit as a percentage of sale price to be paid up front.

Total Months
The number of months before the first sale when the deposit is paid.

Distribution Months
The period over which the deposits can be collected prior to the first sale from the initial deposit term.

Deposit Curve
The deposits can be distributed using any of the standard methods available in ARGUS Developer.

Distribution Weighting
If you use the weighted distribution type, this field becomes active.

Offset (-Months)
Once the first unit has been sold, the pre-sales period ends and all further deposits are collected prior to the sale of each subsequent unit. The **Offset** field specifies how many months before the sale a deposit will be collected. An offset of zero will collect the deposit in the same period as the sale takes place. An offset of negative one will collect the deposit in the period prior to the sale and so on.

Use Manual Distribution
Selecting *Yes* allows you to manually distribute the deposits.

Distribution Detail
Opens up the data distribution function for editing.

Example 1: Twenty (20) units are to be sold at $250,000 each, over a five month period on an even curve basis. Therefore, four units will be sold each month. A 10% deposit is to be taken for each unit and the initial deposits (on the first month's sales)

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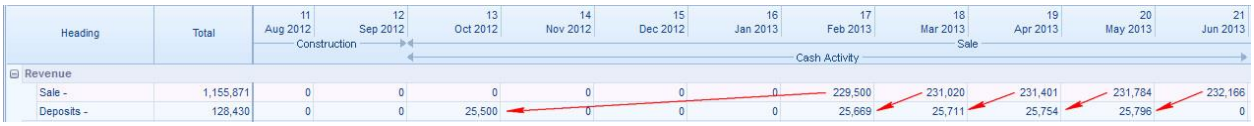
are to be taken four months before the first four units are sold and spread over a two month period on an even basis. The remaining deposits are to be paid two months before the units are sold - this is the Absorption period. The illustration below reflects this scenarios.

Heading	Total	9 Jun 2012	10 Jul 2012	11 Aug 2012	12 Sep 2012	13 Oct 2012	14 Nov 2012	15 Dec 2012	16 Jan 2013	17 Feb 2013
		Construction				Sale				
		Cash Activity								
Revenue										
Sale -	4,500,000	0	0	0	0	900,000	900,000	900,000	900,000	900,000
Deposits -	500,000	50,000	50,000	0	100,000	100,000	100,000	100,000	0	0

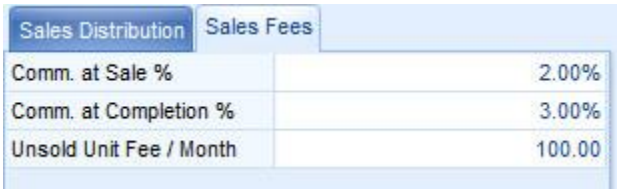
Example (With Growth): Five (5) units are to be sold at $250,000 each over a five month period. Therefore, 1 unit is sold per month. A 10% deposit is to be taken for each unit and the initial deposit is to be taken four months before the first unit is to be sold. The other deposits are to be taken the month before the sale in the Absorption period. The sales line has growth applied at 2% per annum from the project start date. In the example below, we see an initial deposit of $25,500 in month 9 and the first sales figure of $229,500 in month seventeen. For the first sale in month seventeen, the program grows the sales figure up to the month in which the deposit is taken (month thirteen). The calculation is as follows: $250,000 * 1.021 = $255,000; Deposit of 10% = $25,500; Remainder is $229,500 in month seventeen. For the remaining four sales, the program grows the sales figure up to the month in which the deposit is taken, and the remainder appears a month later.



Heading	Total	11 Aug 2012	12 Sep 2012	13 Oct 2012	14 Nov 2012	15 Dec 2012	16 Jan 2013	17 Feb 2013	18 Mar 2013	19 Apr 2013	20 May 2013	21 Jun 2013
		Construction				Sale						
		Cash Activity										
Revenue												
Sale -	1,155,871	0	0	0	0	0	0	229,500	231,020	231,401	231,784	232,166
Deposits -	128,430	0	0	25,500	0	0	0	25,669	25,711	25,754	25,796	0

Sales Fees

The Sales Fees tab is displayed in the Unit Sales, Single Unit Sales, and Multi Unit Sales screens. It allows you to specify commission settings for sales.



Commission at Sale %

This is commission being paid upon the signing of a sales contract to a third party. You can use this to model sales agent fees on a per-area basis. The amount being paid is a percentage of the unit price inclusive of escalation; therefore, there is no explicit inflation on the cost itself. The distribution of the fee follows the distribution on the Sales Starts line for the area.

Commission at Completion %

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This is commission being paid upon sales completion to a third party. Again, you can use this to model sales agent fees on a per-area basis. The amount being paid is a percentage of the unit price inclusive of escalation; therefore, there is no explicit inflation on the cost itself. The distribution of the fee follows the distribution on the Actual Completions line for the area, taking the escalation information from the Sales Starts line for the area.

Unsold Unit Fee / Month

This is a fee that is payable on units for which construction has completed, but that so far remain unsold. You can use this to model condominium fees for multi-unit developments, site security for single unit developments and so on. The amount is multiplied on a per-period basis with the number of units for each period as found on the Units Available line for the area.

Sales Additions/Costs

To include additional sales revenue and costs, based on the unit sales, click the **Click to View Sales Additions/Costs** hyperlink. You are able to add unlimited costs and revenue items. The values for each of the items will be either added to, or deducted from, the total sales value.

To	Do this
Add/Delete new rows	Use the **Plus** and **Minus** buttons
Change Revenue/Cost	Click in box and select from drop-down
Change Type	Click in field and choose from one of various options: 1. *Fixed Amount/Unit/Year* 2. *Amt x Net Area* 3. *Amt x Gross Area* 4. *Amt x Alternate Area*
Apply to different area/units from the area schedule	Click into **Selection** field and apply to unit(s)
Apply inflation to rows	Click into the **Inflation** field and select from menu of the previously defined inflation sets

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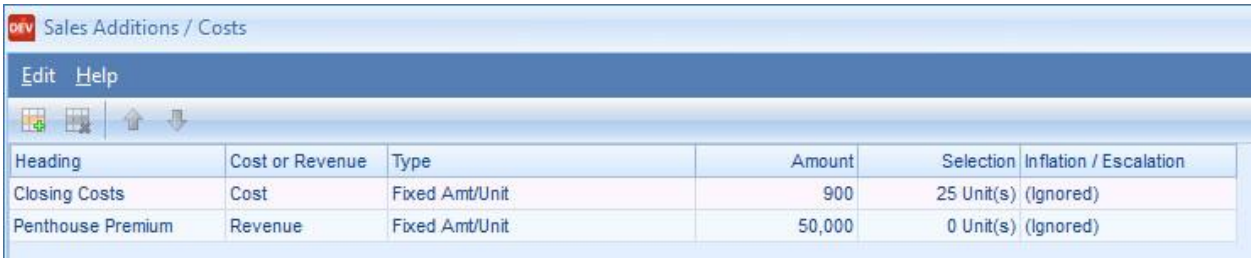

Heading	Cost or Revenue	Type	Amount	Selection	Inflation / Escalation
Closing Costs	Cost	Fixed Amt/Unit	900	25 Unit(s)	(Ignored)
Penthouse Premium	Revenue	Fixed Amt/Unit	50,000	0 Unit(s)	(Ignored)

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Residential Sales

The Single Unit Sales and Multiple Occupancy Unit Sales schedule are intended primarily for residential developments.

You can open the Single Unit and Multi Unit Sales schedules by dropping down the **Sales Areas** button in the Definition group on the Home tab then selecting the schedule you want. Alternatively, you can click the ellipsis button in the Definition screen to access the same schedule.

If you cannot see the fields for Single Unit Sale and Multi Unit Sales in the Areas, Build rates, Revenues & Values group in the Definition screen, use the method below to show them.

To show unit sales fields

1. Open the Preferences window – ARGUS Button > Preferences.
2. On the General tab, check the **Show Unit Sales Buttons** and **Show Single / Multi Sales Buttons** options.
3. Click the **OK** button.

Single Unit Sales

To enter single unit sales, select the **Sales Areas > Single Unit Sales** command from the Definition group on the Home tab.

Many of the fields in this screen are the same as other area-based forms for Capitalized Rent or Unit Sales. There are some differences, however, and these are described below.

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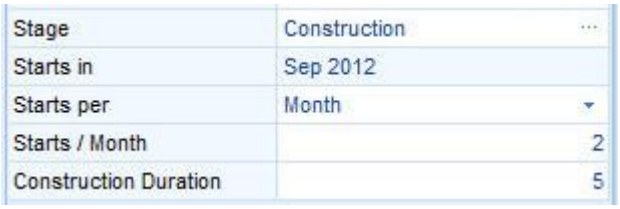
Construction Cost Distribution

In single unit sales, batches of units are grouped together for construction and sales purposes. Each batch of units can start construction every month, two months, quarter or year. Each batch is given a duration to complete construction and the costs are distributed over a standard S-Curve by default.

Constructing the units in batches will show a distorted construction curve when you view it in the Data Distribution screen. This is because each batch of units overlap by a few months, flattening out the distribution curve.

The sales revenues and deposits will tend to be received during the construction cycle, thereby reducing the interest payments over the term of the project.



Stage / Starts in: This defines the start timing for the first batch of units to be constructed.

Starts per: Here you can choose the cycle in which constructions start. This can be monthly, two-monthly, quarterly or annual. The first cycle starts at the construction start period.

Starts / Cycle: This defines the number of units that begin construction in each cycle. Until a non-zero value has been entered here, all units start construction in the first construction period.

Construction Duration: The construction duration defines the number of months each batch of construction units takes to complete.

Sale Timing and Distribution

The timing of the initial sale is defaulted to the Construction development stage entered in the Time Scale & Phasing area. It can be overridden by clicking on the **Stage** ellipsis button in the Sales tab.

Once the initial timing is set, the distribution is automated using the fields in the Sales Distribution tab.

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Regular Sales – Deposit %: This is the deposit percentage. The deposit for a sale is payable on the signing of a sales contract and so the distribution on a deposit line for a single unit sales area is directly determined through the fields controlling the sales distribution.

Initial Sales – Sales %: This field is a "virtual" field. The actual value stored on the area record is the number of units sold on day one. However, the initial sales can be entered as a percentage.

Initial Sales – Units: This is the number of units that is expected to be sold when the sale for the area is first launched. Normally more sales contracts are expected to be signed during that month than during the regular sales period. If this field is non-zero, the number of units in the first sales period is taken from this field. If the field is left zero, the number of units sold in the first sales period is controlled through the regular sales fields.

Balance of Sales – Sales per: This field determines the sales cycle to be used. It can be monthly, two-monthly, quarterly, or annual.

Balance of Sales – Sales /Month/2 Months/Quarter/Year: This field determines the number of units sold during a sales cycle. If this field is zero, the total number of units minus in the first month sales period, or an adjusted number of units in the second month of the sales period if day one sales have been modelled for the area.

Regular Sales – Months to Complete: This field determines the minimum number of months between the signing of a sales contract and the completion of the sale. What determines the actual difference in months is whether enough units have been constructed to cater for the demand.

Multi-Unit Sales

To enter multiple occupancy unit sales, select the **Sales Areas > Multiple Occupancy Unit Sales** command from the Definition group on the Home tab.

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Construction Costs	Financial	
Rate pf²		250.00
Rate Additional pf²		0.00
Cost / Unit		287,356
Cost / Parking Stall		0
Parking Stalls Cost		0
Gross Cost		14,367,816
Stage	Construction	···
Starts in	Feb 2013	
Distribution Months		10

Sales	Financial	
Rate pf²		400.00
Escalation Set	2%	
Sales / Unit		400,000
Gross Sales		20,000,000
Net Sales (Escalated)		20,288,960
Initial Sales Timing		
Stage	Pre Construction	···
Starts In	Jul 2012	
Contract Selection		
Pre Constr. Completion	Pre Completion	
Post Constr. Completion	Post Completion	

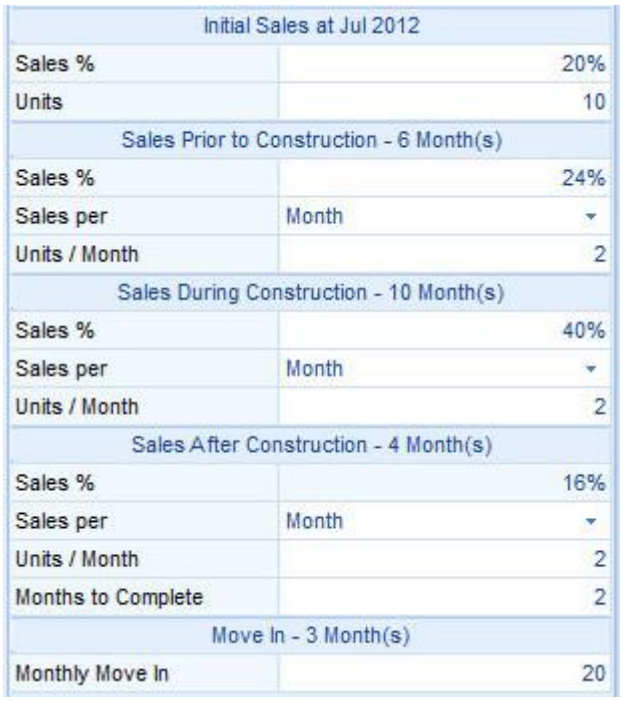
Sales Distribution	Sales Fees	
Initial Sales at Jul 2012		
Sales %		20%
Units		10
Sales Prior to Construction - 6 Month(s)		
Sales %		24%
Sales per	Month	
Units / Month		2
Sales During Construction - 10 Month(s)		
Sales %		40%
Sales per	Month	
Units / Month		2
Sales After Construction - 4 Month(s)		
Sales %		16%
Sales per	Month	
Units / Month		2
Months to Complete		2
Move In - 3 Month(s)		
Monthly Move In		20

Many of the fields in this screen are the same as other area-based forms for Capitalized Rent or Unit Sales. There are some differences, however, and these are described below.

Sales Timing and Distribution

The most complex automatic sales distribution patterns can be modelled through the multi unit sales schedule.

Multi unit sales contain up to four sales periods. There may be initial (day one) sales, sales prior to construction, sales during construction and absorption sale. Absorption sales are those sales that take place when construction of the building has been completed.



Initial Sales at Jul 2012	
Sales %	20%
Units	10
Sales Prior to Construction - 6 Month(s)	
Sales %	24%
Sales per	Month
Units / Month	2
Sales During Construction - 10 Month(s)	
Sales %	40%
Sales per	Month
Units / Month	2
Sales After Construction - 4 Month(s)	
Sales %	16%
Sales per	Month
Units / Month	2
Months to Complete	2
Move In - 3 Month(s)	
Monthly Move In	20

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Initial Sales – Sales %: This field is a "virtual" field. The actual value stored on the area record is the number of units sold on day one. However, the Initial Sales can be entered as a percentage.

Initial Sales – Units: This is the number of units that is expected to be sold when the marketing of the units is first launched. It is usual for a greater volume of sales contracts to be signed during that month than during the regular sales period. If this field is non-zero, the number of units in the first sales period is taken from this field. If the field is left zero, the number of units sold in the first sales period is controlled through the regular sales fields.

Sales Prior to Construction – Sales %: This field is a "virtual" field. The actual value stored on the area record is the number of units sold each period prior to construction. However the number of units sold prior to construction can be entered as a percentage, which will then be automatically converted to a number of units per period.

Sales Prior to Construction – Sales / Month/2 Months/Quarter/Year: This is the number of units that is expected to be sold each period prior to the start of the area construction.

Sales During Construction – Sales %: This field is a "virtual" field. The actual value stored on the area record is the number of units sold each period during construction. However, the number of units sold during construction can be entered as a percentage, which will then be automatically converted to a number of units per period.

Sales During Construction – Sales /Month/2 Months/Quarter/Year: This is the number of units that is expected to be sold each period during the area construction.

Sales After Construction – Absorptions /Month/2 Months/Quarter/Year: This is the number of units that is expected to be sold each period after the area construction completes.

Sales After Construction – Absorption Months: This field determines the minimum number of months between the signing of a sales contract and the completion of the sale. What determines the actual difference in months is how long a client has to wait until he can take possession of the unit, which is controlled through Monthly Move In field.

Move In – Monthly Move In: The monthly move in determines for how many units the sale can be completed each month. For example, the number of people moving into a condo development is restricted by the number of elevators and allowing more units to be occupied would be counter-productive. In such cases you can use the monthly move in field to delay sales completions.

Sales Contracts

Multi-unit sales areas do not have a deposit % field. Instead a more flexible and market-driven way of receiving sales revenue is achieved by using Sales Contracts. Sales contracts are selected from the Sales tab.

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Each area record can use two different contract types, one for sales that occur prior to construction completion (the Pre-sales Contract) and one for sales that occur after construction (the Absorption Contract).

When no contracts are used, the full unit price is collected when the sale completes.

Sales Contract Editor

To create and edit Sales Contracts, select the **Sales Contracts** command, or select the **Area > Sales Contracts** menu command.

The sales contract editor works in a similar manner to other Developer schedule editors. A basic default contract defines an opening and a closing stage. It is set up to collect a deposit percentage at the opening stage with collection of the remainder at the closing stage.

Each contract definition requires an opening and a closing stage and collects 100% (or optionally more) of the unit sale price.

Allow more than 100% distribution In some cases, absorption units sold after area construction completes are valued higher than units sold prior to construction completions. This check box can then be used to provide an uplift in this sale's price.

Value: This column allows you to define a percentage for each stage.

Months from Initial Sales: This column allows you to define the number of months after initial sales when a stage occurs.

Note: If you have defined a stage that is an opening or closing stage, "N/A" will be displayed here, and you will not be able to enter a value.

Opening Stage: The opening stage of a sale is defined as the stage in the sale of a single unit is the sales start or when the client signs the contract to buy the unit. For opening stages, the timing is controlled through the sales starts unit information line and thus a number of months offset from the construction start cannot be entered.

Closing Stage: The closing stage of a sale of a single unit is the sales completion or when the client takes possession of the unit. For closing stages, the timing is controlled through the actual completions unit information line and thus a number of months offset from the construction start cannot be entered.

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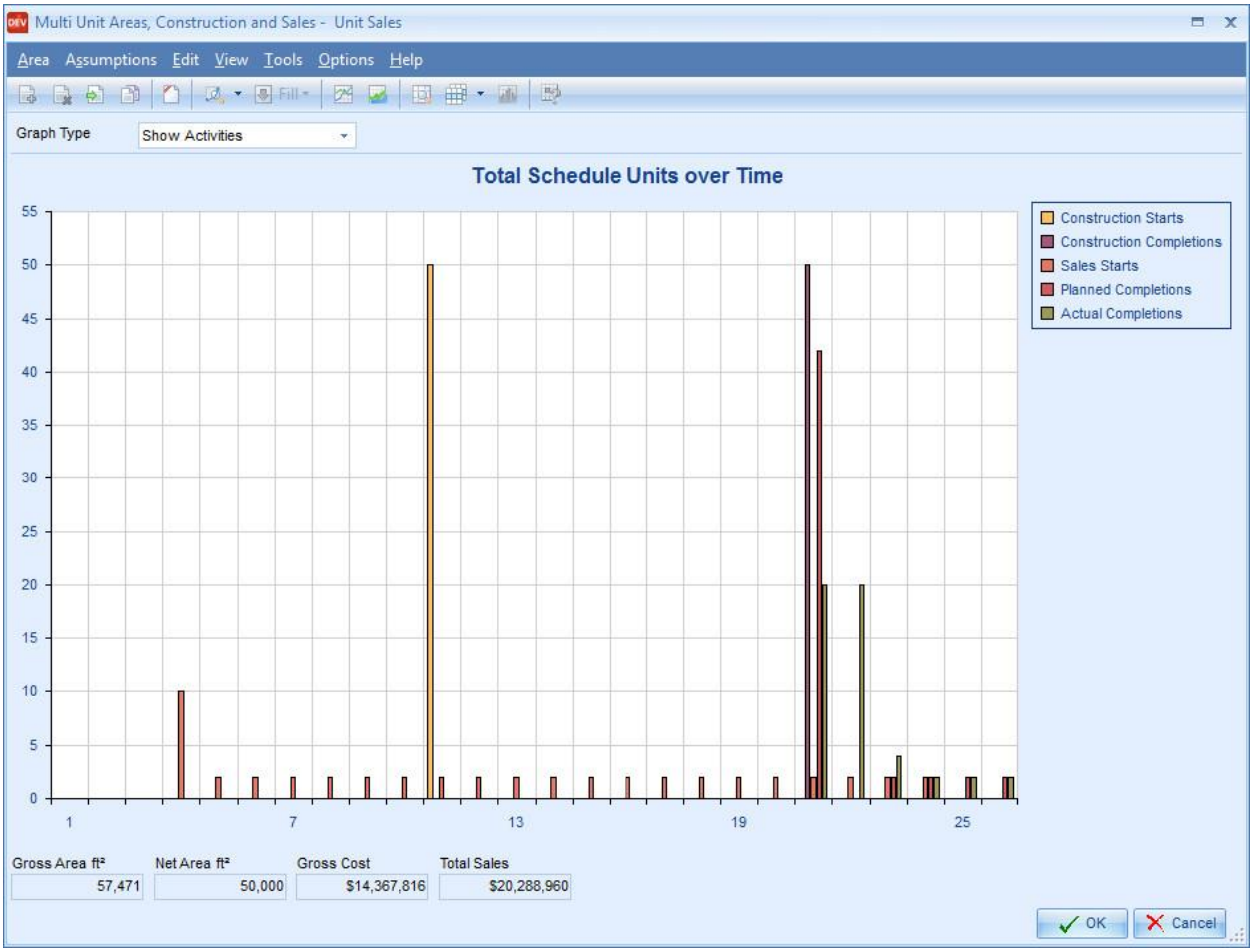
Copying a contract to make a copy of a contract, select the contract to be copied and click on the **Copy Contract** button.

Graph view in the Sales schedules

You can view sales activity graphs in all of the sales schedules (Unit Sales, Single Unit Sales and Multi Unit Sales).

To view these graphs, just click on the **Graph View** command on the tool bar in any of these sales schedules.



The **Graph Type** field above the graph allows you to choose between a chart of activities or a chart of cumulative activities.

If you wish to change the view back to a data input mode, click on the **Line Detail View** or **Schedule View** buttons.

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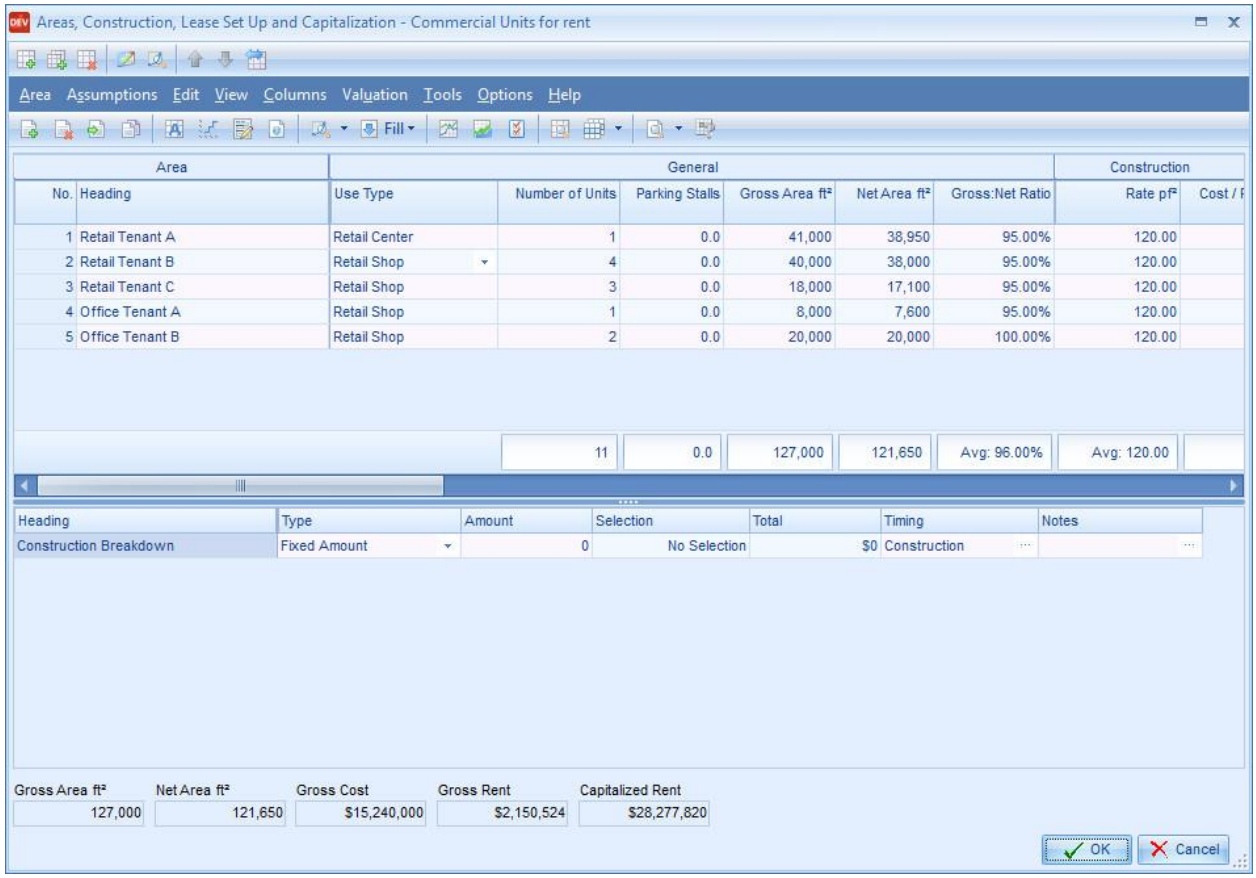
Quick Entry Area Schedule

You can save time when entering floor space details and rates by using the Quick Entry Schedule. This style of entry allows you to define area records using a spreadsheet-style table that displays only the fields that you want to work with

To open the Quick Entry schedule, click on the **Schedule View** command, or select *View > Show Schedule View*.

The Quick Entry schedule is comprised of several main sections:

- The tool bar that allows you to change the number of fields displayed and to copy fields and rows;
- The Area data entry grid
- The Construction Cost Breakdown grid (displayed when you use the **View > Show Cost Breakdown** menu option);
- The summary of areas, costs, and revenues.



Quick Entry Toolbar

When the wide schedule view is used, there are some additional commands that become available.

Copy Down: Copy a single value down through a column by clicking on this button. Move to the value you want to copy, click on the button and enter the number of times the value is to be copied. The value is copied down the column, replacing existing entries.

Fill Series: Copy a value and modify it for each subsequent row using this command. Select the cell you want to copy, select **Fill Series** and enter the parameters of the value you want to change. See the topic on using the **Fill Series** command later in this section.

Quick Entry Table

The quick entry table is a grid of rows and columns. Each row represents a definition for a single area, and each column represents a field within the area. A selected cell appears highlighted on the screen. The active cell is the cell into which data is entered when you start typing. Only one cell is active at a time.

Some cells will remain fixed – you may not enter a value into them. These fields are calculated automatically and include: Total rent deductions, Net rent p.a. (or Valuation Rent), Net capitalized rent and Rent free amount.

The table contains a subset of the available fields for area definition. You can see more detail for the current area by clicking on the **Detail** command button at the foot of the screen. Use the detail view for entering inflation, growth, interest sets and for specifying the timing of construction costs and receipts.

Housekeeping functions in the schedule view

In the schedule view, you have access to copy, paste and move functions that allow you to copy and paste and move area records between schedules. This allows you to duplicate records, in order to speed up data input.

To Copy and Paste an area record

1. Select the area by clicking into the table.
2. Select the **Copy Area** command.
3. Enter the number of copies.
4. Click the **OK** button.

The area record will be pasted at the end of the table.

To Copy all areas to the clipboard

1. Select the **Edit > Copy Area Schedule** command.
2. Select either *Copy Current Area* or *Copy All Areas*.
3. Copy all columns in the table by checking the **Switch to All Columns** option.
4. Click the **OK** button.

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The **Paste** command may now be used to work with the copies.

To paste area records from the clipboard

1. Select the **Edit > Paste into Schedule** command.
2. Select the position where you want to paste the data.
3. Click the **OK** button.

Note: Data can be inserted before the first area record, before the currently selected record, or after the last area record.

To copy an area record to a different phase

1. Select the **Edit > Copy to another Phase** command.
2. Select either the current record, or all records option.
3. Select the phase number.
4. Click the **OK** button.

The record or records are copied to the same schedule but in a different phase.

To copy an area record to a different schedule

1. Select the **Edit > Copy to another Schedule** command.
2. Select either the current record, or all records option.
3. Select the name of the schedule.
4. Click the **OK** button.

The record or records are copied to a different schedule within the same phase. There may be some data loss due to the different types of data used in each schedule.

Example: Moving a capitalized rent record to the Unit Sales schedule would result in the loss of the cap rate because unit sales do not work with cap rates.

To move an area record to a different phase

1. Select the **Edit > Move to another Phase** command.
2. Select either the current record, or all records option.
3. Select the phase number.
4. Click the **OK** button.

The record or records are moved to the same schedule but in a different phase. The records in the original schedule are deleted.

To move an area record to a different schedule

1. Select the **Edit > Move to another Schedule** command.

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2. Select either the current record, or all records option.
3. Select the name of the schedule.
4. Click the **OK** button.

The record or records are moved to a different schedule within the same phase. The records in the original schedule are deleted. There may be some data loss due to the different types of data used in each schedule. For example, moving a Capitalized Rent record to the Unit Sales schedule would result in the loss of the Cap Rate because Unit Sales do not work with Cap Rates.

Copying values in the schedule

When you want to copy a value in a record to a number of other records, you can use the Fill Down command. The Fill Down command takes the value from the selected cell, copies it to a series of records then recalculates each record based on the new value.

Example: If you wanted to change the Cap Rate for all records to a new value, you could use the Fill Down command to copy the Cap Rate in the selected cell to all other records.

To copy a value to other records

1. Select the cell whose value you want to copy.
2. Select the **Fill > Fill Down** command.
3. Enter the number of records you want to copy to.
4. Click the **OK** button.

The **Fill Down** command works by copying to a specific number of records from the current record down through the schedule.

Filling a Series

Instead of entering data manually into the schedule, you can use the **Fill Series** command to fill cells with data that follows a pattern or that is based on data in other records.

To fill cells with a series of numbers

1. Select the **Fill > Fill Series** command.
2. Enter the number of records you want to fill with new values.
3. Under **Type**, click one of the following options:

- **Linear:** Create a series that is calculated by adding the value in the Step Value box to each cell value in turn.
- **Percentage:** Create a series that is calculated by adding a percentage in the Step Value box to the original value to each cell in turn.

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4. In the Every box, enter the frequency at which each cell should be filled:
   - To fill every row, enter 1.
   - To fill every other row, enter 2 and so on.
5. Click the **OK** button.

To fill cells with a series of dates

1. Select the **Fill > Fill Series** command.
2. Enter the number of records you want to fill with new values.
3. Under Date Unit, click one of the following options:
   - Month Create a series that is calculated by adding the number of months in the Step Value box to each cell date in turn.
   - Year Create a series that is calculated by adding the number of years in the Step Value box to each cell date in turn.
4. In the Every box, enter the frequency at which each cell should be filled:
   - To fill every row, enter 1.
   - To fill every other row, enter 2 and so on.
5. Click the **OK** button.

To fill cells with a series of text headings

1. Select a cell under the Heading or Unit Number columns.
2. Select the **Fill > Fill Series** command.
3. Enter the number of records you want to fill with new values.
4. For the **Append** (text Fields only) option:
   - Select the box to create a series of headings that are calculated from the original heading plus a numerical index.
   - Un-check the option to create a series of headings that are calculated from a numerical index plus the original heading.
5. In the Every box, enter the frequency at which each cell should be filled:
   - To fill every row, enter 1.
   - To fill every other row, enter 2 and so on.
6. Click the **OK** button.

To undo a Fill Series command

1. Select the **Fill > Undo Fill Series** command.

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Options for Capitalized Rent and Unit Sales

Monthly Rent Rates

Rents are normally entered as annual payments. In some European countries, rent rates are expressed as monthly rates. Both the Rent rate and the MRV per Unit can be specified as monthly rates.

When you change the rate basis between annual and monthly, all annual rates will be expressed as monthly rates. The Gross Rent and Capital Value will remain unchanged.

Note: This setting affects rents across all phases.

To use monthly Rent and MRV rates

1. Tick the **Monthly Rent Rate** option on the Options menu.
2. Confirm the change by clicking the **OK** button.

Lock Gross: Net Ratio

The Gross

Net area ratio can be fixed so that all area records maintain a fixed ratio between the gross and the net areas. This setting makes entering area information easier – you need enter only one of the area measurements for the program to automatically calculate the other.

To lock the Gross to Net ratio

1. Select Assumptions > Lock Gross: Net Ratio.
2. Select the **Lock Gross:Net Ratio** option.
3. Enter the fixed ratio you want to maintain between the areas into the **Gross:Net Ratio % field**.
4. Click the **OK** button.
5. In the confirmation window, choose from the following options:

To	Do this
Apply the locked ratio to any new area definitions.	Select the **To NEW areas only** radio button and click on the **OK** button.
Apply the locked ratio to every existing area definition and to all new definitions.	Select the **To ALL area definitions** radio button and click on the **OK** button.

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Cancel the locked ratio setting.	Click on the **Cancel** command button.

To change the net area when the gross area is entered

1. Select Options > Ratio - Change Net Area.

To change the gross area when the net area is entered

1. Select Options > Ratio - Change Gross Area.

Valuation Tables

The valuation tables are used in the calculation of the factors used in the capitalized rent calculations. In most cases, the **Annually in Arrears** option is used but in UK valuations, other options are often used. The default setting is *Annually in Arrears*.

To choose a valuation table method

1. Select **Tables** from the Valuation menu.
2. Choose one of the table types.

The capital values will be re-calculated automatically when the table type changes.

Rent Free Methods

You can change the method used to value rent free periods from the Valuation menu.

Note: The Rent Free methods are not available for selection when the Tenant Rent Flow option is active. When this option is active, the method used is always *Defer start of rent flow*.

To change the rent free cost method

1. Select **Rent Free Methods** from the Valuation menu.
2. Choose one of the rent free methods.

The rent free costs will be re-calculated automatically when the method changes.

Tenant's Income Stream

Each tenant lease can generate a stream of annual rent which is entered as a separate line item in the cash flow. This income is subject to rent reviews and lease renewals. It is capitalized on the sale date of each tenant lease.

When this option is not active, the leasing and the capitalization are assumed to take place on the same date. Although escalation is factored into the rental value and capitalization, no rent reviews are considered.

To enable the flow of rent

1. Select the **Tenant's Income Stream** option on the Valuation menu.
2. The rental income and capitalized rents are recalculated.

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To disable the flow of rent

1. Deselect the **Tenant's Income Stream** option on the Valuation menu.

2. The annual and capitalized rents are re-calculated.

Imperial and Metric Unit

The program can work with two different measurement systems – Imperial and Metric. A conversion function allows you to work with either system by recalculating each area record – gross and net measurements and Rent/Sales/Construction rates. Any costs or revenues that have been calculated on a rate/ft2 or rate/m2 are also included in the conversion calculations.

During the conversion process, small discrepancies can be created due to metric area measurements and rates being stored with two decimal places.

To change between measurement systems

1. Select Tools > Convert to Metric or Tools > Convert to Imperial.

Save Zero Value Items

This is for setting up templates. If you want a template that has fees related to items in the area schedule, you first need to create the items in the area schedule and then populate the cash flow with them. You will most likely not be entering any costs or rents/sales into the schedules at this stage - only zeroes. ARGUS Developer will not save zero items in the schedule into the cash flow, so you check Save Zero Items in the area schedule to get ARGUS Developer to show zero area-based cash flow lines.

Name Area Tabs

You can name individual areas such as (for example) Unit 1, Unit 2. This option allows you to choose whether these headings appear on the area tabs for reference.

Stepped Base Rent Rate = MRV Rate

If this is activated, the first step of the selected Stepped Rent Profile on the base date is used as the Market Rent Rate.

Allow Negative Rents

In most projects, you will be working with Positive Rents. In some circumstances, it may be necessary to enter negative rents in order to capitalize a cost.

Use this option to allow entry of negative amounts.

Menu Options for Displaying and Selecting Columns

The Quick Area Schedule includes all the data entry fields necessary for creating tenant or unit sales records. To enable easy entry of data, the schedule is divided into several bands of columns, each of which is the equivalent of the tabs in the detail view. There is also a band available for you to customize to include any fields you want.

To select the columns that you wish to see displayed in the Areas, Construction, Rent and Capitalization or Areas, Construction and Unit Sales schedules, you can use the following menu options:

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Selecting all columns

Use the **Columns > All** menu option to display all columns.

Construction Costs columns

Use the **Columns > Construction and Columns > Construction Financial** menu options to display the construction cost columns.

Rent columns
In the Areas, Construction, Rent and Capitalization form, use the menu options to display all rent columns (options available are Rent, Rent Financial, Turnover Rent and Rent Capitalization).

Hotel columns
In the Areas, Construction, Rent and Capitalization form, use the Columns > Hotel menu option to display all hotel-related columns.

Operated Asset columns
In the Areas, Construction, Rent and Capitalization form, use the Columns > Operated Asset menu option to display all operated asset-related columns.

Lease Details columns
In the Areas, Construction, Rent and Capitalization form, use the menu options to display all lease details columns (options available are Lease and Ground Lease).

Sales columns
In the Areas, Construction and Unit Sales form, use the menu options to display the sales columns. You can select Sales, Sales Deposits, Sales Fees, and Sales Financial columns.

Custom columns
Use the **Columns > Custom** menu option to display the custom columns (if any have been defined).

To choose the specific custom columns that will be displayed in the schedule, use the **Columns > Column Selector** menu option to open the Custom Column Selector window:

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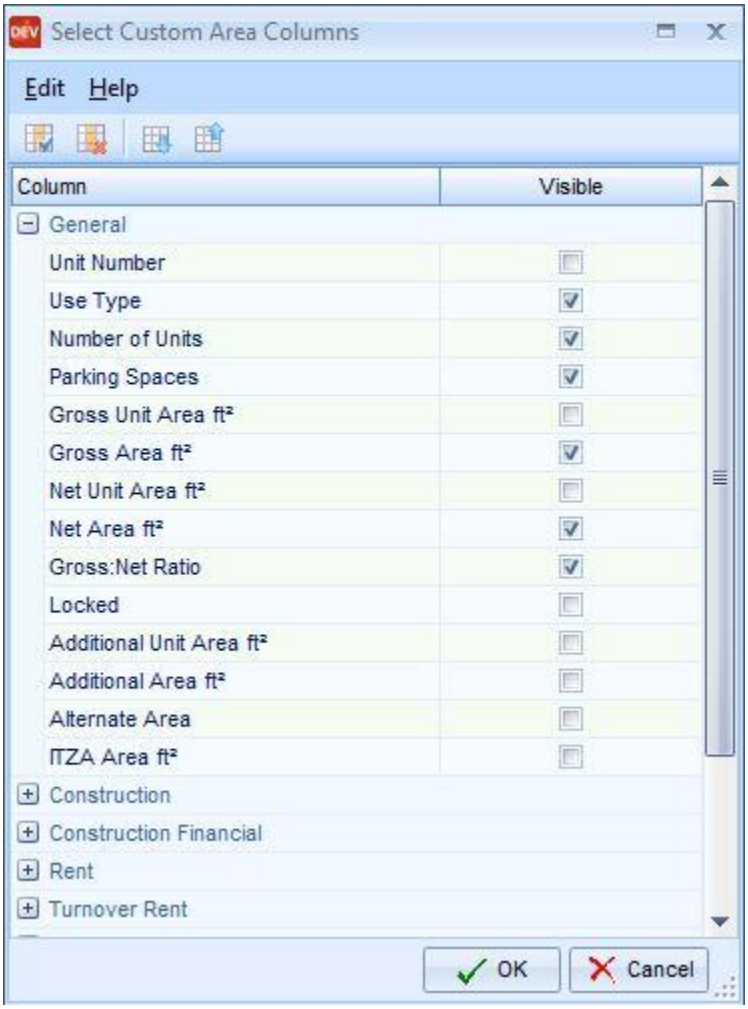

Select all the custom columns that you wish to include in the Areas, Construction, Rent and Capitalization or Areas, Construction and Unit Sales schedule.

If you wish to check all options, use the **Columns > All On** menu option.

If you wish to uncheck all options, use the **Columns > All Off** menu option.

To accept your settings and exit from the window, you can either click the **OK** button, or use the **Columns > Save Changes & Exit** menu option.

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Operated Assets

The Operated Assets valuation module is an optional feature within ARGUS Developer. You may need to purchase a licence for this module before you can start working with operated assets.

The Operated Assets module allows you to specifically focus on managing rent and occupancy rates for business premises, including hotels, golf courses, marinas, serviced apartments, self storage and so on.

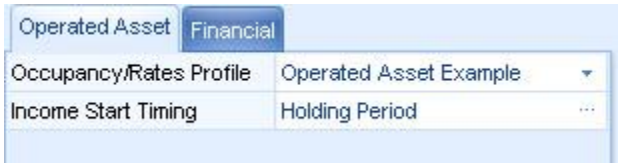
Note: Once you have set up any operated assets, you may wish to create a report of the data you have entered. An Operated Assets report is available in the Enhanced Reports section of the reporting module.

Using Operated Assets

To quickly access operated assets when you only want to create or edit data, select the Operated Asset command in the Definition group on the Home tab.

To create and then capitalize operated assets

1. Select the **Capitalized Rent** command in the Definition group on the Home tab.
2. Change the Use Type to one of: Amusement Park, Golf Course, Marina, New Hotel, or the generic Operated Asset. The Rent tab is replaced with the Operated Asset tab.



3. Click the **Click to View Operated Assets** hyperlink.
4. Create or edit a profile then close the operated asset screen.
5. In the Operated Asset tab, select the name of the profile in the drop-down list of the **Occupancy/Rates Profile** field.
6. Enter a cap rate to capitalize the net operating income.

To create operated asset profiles

1. Click the **Click to View Operated Asset Profiles** hyperlink.
2. Click the **Add New Profile** command.
3. Click the **Rename** command and enter a new name.
4. Enter Occupancy and Rates tables.
5. Enter operating revenues and expenses.

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To copy an asset profile

1. Select the profile name in the drop-down list of the **Name** field in the Asset Profile group.
2. Select the **Copy Profile** command.

To delete an asset profile

1. Select the profile name in the drop-down list of the **Name** field in the Asset Profile group.
2. Select the **Delete Profile** command.
3. The profile will be deleted, along with any references to it in any area records.

Occupancy and Rates Tables

The Occupancy and Rates tab allows you to enter the types of variables required to calculate the base income and operating revenues and expenses for a business operation. The types of variable are predefined and are listed in the table below. This tab holds an unlimited number of different pages of data, each page representing a single variable type. For example, in a hotel, you would have the number of rooms, occupancy rates and average daily room rates.

Each page holds rates that change month by month and year by year. For simple operations, this may be percentage occupancy rates and average daily room rates. For more complex operations such as a marina, where many different variables are used, there could be dock length, monthly rate/ft and % occupancy.

The start date of Operated Asset Pages is (by default) the month of the commencement of the Holding Period (Stage 6 in the current Phase); therefore, if you change the timing of this stage, the page time frame will change also. You can also force the start date of the pages to begin in January of the calendar year in which the holding period begins - but this is not as flexible as the default method.

To select the method you wish to use, open the Preferences window by clicking on the expansion button in the bottom right corner of the Options group on the Home tab. Next, check or uncheck the **Begin Occupancy and Rates at start of Holding Period** option then click the **OK** button.

The profile requires you to enter each variable type required as a page in a notebook. When adding a page, you will be asked to specify what type of variable it will be used for, the page name and the number of decimal places required for the data. The variable types are:

Variable Type	Description
Occupancy Rates	This is used to specify the monthly occupancy of the operated unit as a percentage.

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Available Units	This is used to specify the number of units available per month.
Average Daily Rates	The daily rate charged for occupancy of the unit. To calculate the monthly charge, the program multiplies the daily rate by the number of days in each month. From month to month, the number of days changes and this is reflected in the calculation.
Average Weekly Rates	The weekly rate charged for occupancy of the unit. To calculate the monthly charge, the program multiplies the weekly rate by the number of weeks in the month. This is done by dividing the number of days in each month by seven. From month-to-month, the number of days changes, and this is reflected in the calculation.
Monthly Rates	The monthly rate charged for occupancy of the unit.
Daily Activities	Used where calculations are based on the number of times per day an activity takes place. To calculate the monthly charge, the program multiplies the Daily Activities by the number of days in the month.
Weekly Activities	Used where calculations are based on the number of times per week an activity takes place. To calculate the monthly charge, the program multiplies the Weekly Activities by the number of days in the month divided by seven.
Monthly Activities	Used where calculations are based on the number of times per month an activity takes place.
Measurement - Linear	Used where calculations are based on the length of the occupied unit. For example, in a marina, charges may be made based on the length of the dock in which a boat is kept.
Measurement - Square	Used where calculations are based on the area of a unit.

Working with Occupancy and Rates Tables

You can create an unlimited number of description tables for a profile. The tables each describe a different time-based variable or constant that can be used to calculate operating revenues and expenses.

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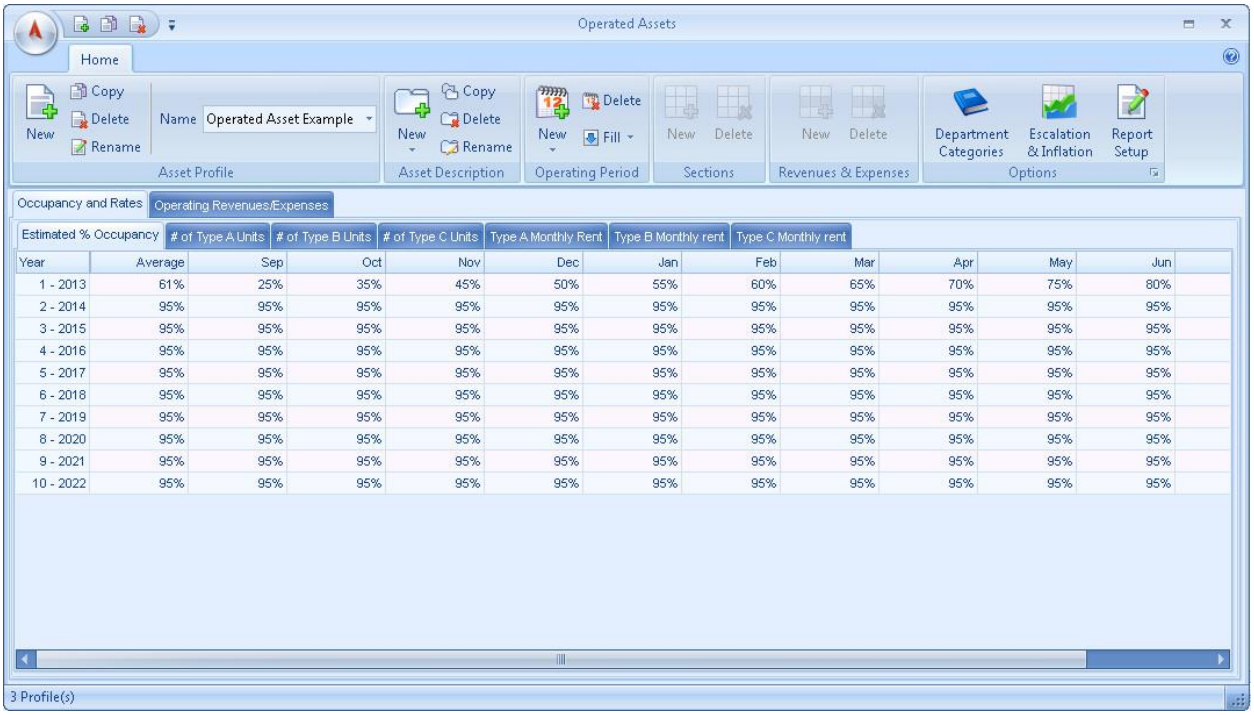

Year	Average	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1 - 2013	61%	25%	35%	45%	50%	55%	60%	65%	70%	75%	80%
2 - 2014	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
3 - 2015	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
4 - 2016	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
5 - 2017	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
6 - 2018	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
7 - 2019	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
8 - 2020	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
9 - 2021	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
10 - 2022	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%

Each of asset description tables holds a year-based schedule containing whatever type of data you have specified in the page properties. You can add one, five or ten years' of rates by clicking the **New Operating Period** command in the Operating Period group.

Note: Adding an operating period to one table will add the same operating period to all other tables in the profile. The Year label will automatically increment to show the year (for example, if the current year is 2008, the first entry would read 1 - 2008, the next entry 2 - 2009 and so on).

Note: You can change the data type for a page at any time by right-clicking on the page and selecting *Page Properties* from the popup menu.

To create an operated asset description

1. Click on the **New Asset Description** command in the Options group.
2. Select from *Occupancy Rates*, *Available Units*, *Average Daily Rates*, or *Other*.
3. If you selected *Add Other*, enter a page description, choose a page type and the number of decimal places.

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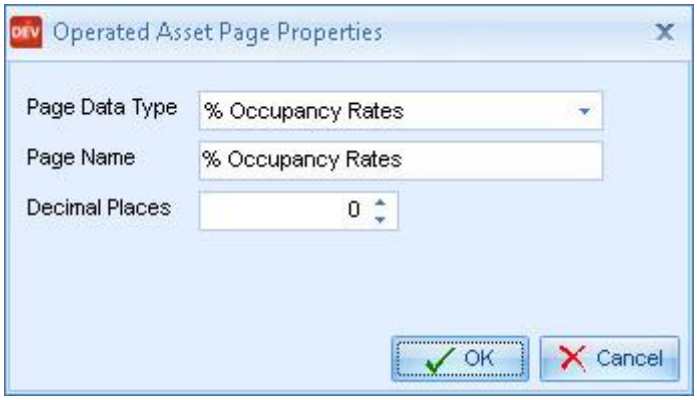

4. Click the **OK** button.
5. A new page in the editor is created with the page properties you just defined.

To delete an asset description

1. Select the asset description by clicking into its table.
2. Select the **Delete Asset Description** command.
3. The description table will be deleted, along with any references to it in the Operating Revenues and Expenses tab.

To copy an asset description

1. Select an asset description by clicking into its table.
2. Select the **Copy Asset Description** command.
3. The copy of the asset description will be added to the end of the notebook.

To move an asset description to another position

1. Select the asset description tab, left-click with the mouse and hold down.
2. Drag the tab to the place you want it to be and release the mouse button.

To extend the operating period

1. Select the **New Operating Period** command.
2. From the drop-down menu, select *1*, *5*, or *10* years
3. The years will be added at the end of the current operating period – i.e. the end of the table.

To shorten the operating period

1. Select the year that you want to delete by clicking into any month cell.
2. Select the **Delete Operating Period** command.
3. The table will adjust to shift all years up through the table.

To fill a year with a single rate

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1. Select the Average cell in the year you want to fill.
2. Enter the rate into the Average cell – it will then copy to all months in the same year.

To fill the current year with the current month's rate

1. Select the rate that you want to use to fill other cells.
2. Select the **Fill Row** command.

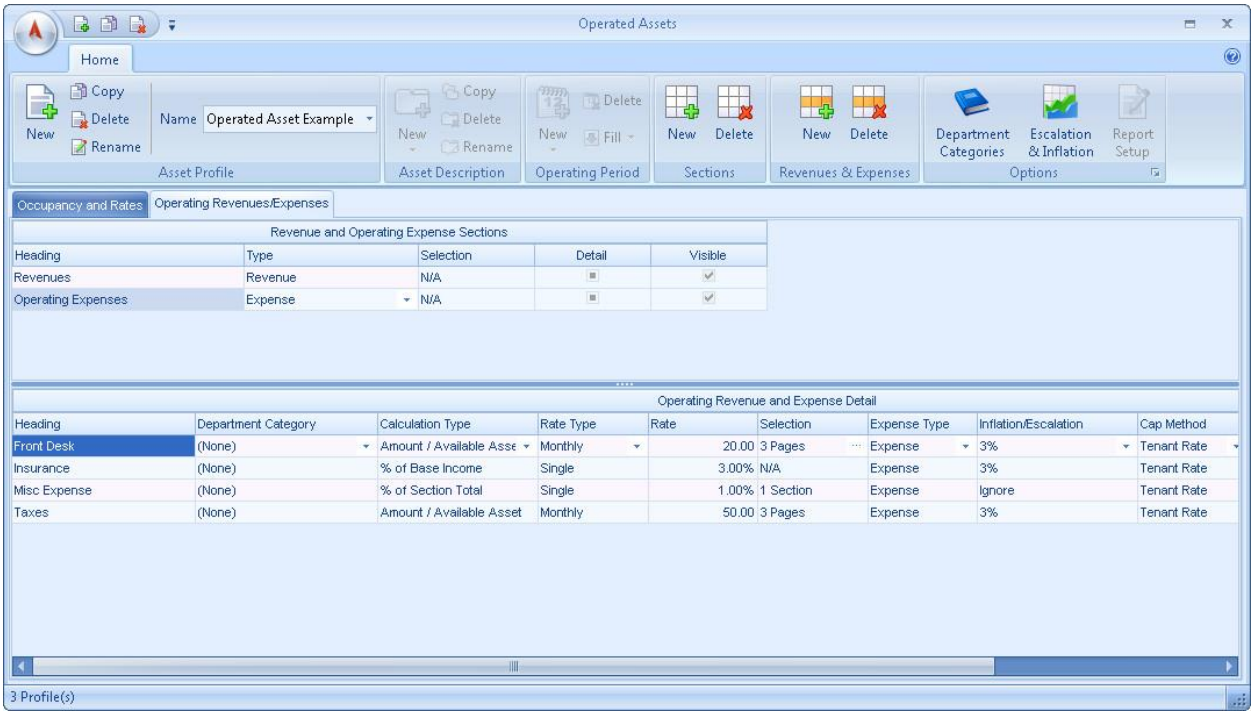
To fill to the end of a column with the current month's rate

1. Select the rate that you want to use to fill other cells.
2. Select the **Fill Down** command.

To fill to the end of a row with the current month's rate

1. 1. Select the rate that you want to use to fill other cells.
2. 2. Select the **Fill Right** command.

Operating Revenues/Expenses tab



This tab is used to generate the base income, operating revenues and operating expenses for the operation.

An operated asset usually has several sections of cost categories, each of which can be based on other sections or calculated from the page variables defined on the Occupancy and Rates tab.

Developer allows an unlimited number of sections and, within each section, an unlimited number of operating revenues or operating expenses.

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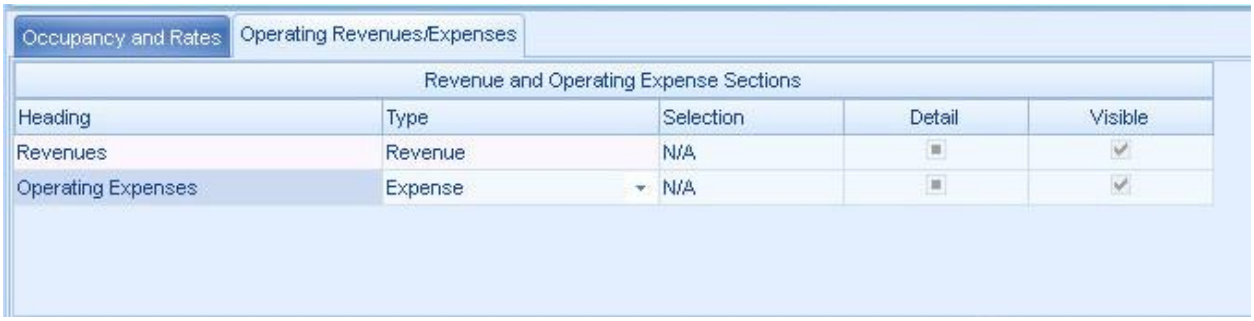
Revenue and Operating Expense Sections

Each of the sections can hold either revenues or operating expenses.



The following columns are displayed in this section of the Operating Revenues/Expenses tab:

Heading – this is used to identify the section in the cash flow and reports. It will also be used when the section is used as the basis for other calculations such as section summaries, section differences or percentage of section total.

Type – used to identify what the section contains: *Revenue*, *Expense*, *Section Summary* or *Section Difference*.

When a revenue item or an expense item is added to the Operating Revenue and Expense Detail part of this tab, the **Type** will be used to automatically set the new item's Cost Type.

Note: If you change the **Type** from *Revenue* to *Expense* and vice versa, the program will change the "Cost Type" entries in the section below, after confirming that you want this to happen.

Summary and Difference sections can also be used as the basis for other calculations. You might want to base some operating expenses on a Departmental Profit section, which is itself based on one or more other sections.

- **Section Summary** - This type of section is used to add together each of the revenues or operating expenses in other sections. The calculation produces a new section, containing a copy of the revenues and operating expenses from each of the selected sections. When these are written to the cash flow, they will be grouped on the category code assigned to each revenue and operating expense item.
- **Section Difference** - This type of section is used to subtract one or more sections from each other. The calculation produces a new section, grouped on the category code assigned to each revenue and operating expense item.

Selection - for Section Summary or Section Difference, this is used to identify which other sections will be added or subtracted to calculate the new section.

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Detail – use this check box to specify whether the Section Summary or Section Difference will contain a full detailed list of each of the items summarized or subtracted (if checked), or whether a single total line will be calculated (if left unchecked).

Visible – use this check box to specify whether the Section Summary or Section Difference will appear in the cash flow. It may be that these types of section are included only for calculation of other operating expenses, in which case they would not be shown in the cash flow.

Operating Revenue and Expense Detail

Each section can hold an unlimited number of either revenues or operating expenses:

Operating Revenue and Expense Detail

Heading	Department Category	Calculation Type	Rate Type	Rate	Selection	Expense Type	Inflation/Escalation	Cap Method
Front Desk	(None)	Amount / Available Asse	Monthly	20.00	3 Pages	Expense	3%	Tenant Rate
Insurance	(None)	% of Base Income	Single	3.00%	N/A	Expense	3%	Tenant Rate
Misc Expense	(None)	% of Section Total	Single	1.00%	1 Section	Expense	Ignore	Tenant Rate
Taxes	(None)	Amount / Available Asset	Monthly	50.00	3 Pages	Expense	3%	Tenant Rate

Heading – used to identify the item in the cash flow and on reports. It is also used when the item forms the basis for another calculation such as the percentage of another item.

Department Category – used mainly in the calculation of Section Summaries and Section Differences as outlined above.

Calculation Type – used to specify the method used to calculate monthly revenues or expenses in the cash flow. Depending on the method chosen, you may be required to enter a **Rate** or make a selection of sections or categories from a popup window.

See Also

Calculation of Monthly Amounts

Rate Type – For most calculation types, the Rate Type will be either *Single* or *Variable*.

If *Single* is chosen, the **Rate** field allows you to enter a single rate for the entire projection period. If *Variable* is chosen, the **Rate** field expands to allow you to enter a table of rates that change month by month over any number of years.

There are two calculation types that have different options for the Rate Type: Amount / Occupied Asset and Amount / Available Asset. For these calculation types, Developer needs to know whether the Rate Type is *Daily*, *Weekly* or *Monthly*.

If a *Daily*, *Weekly* or *Monthly* rate type is chosen, the **Rate** field allows you to enter a single rate for the entire projection period.

If a *Daily Variable*, *Weekly Variable* or *Monthly Variable* rate type is chosen, the **Rate** field expands to allow you to enter a table of rates that change month by month over any number of years (example shown here is for Daily Variable Rates):

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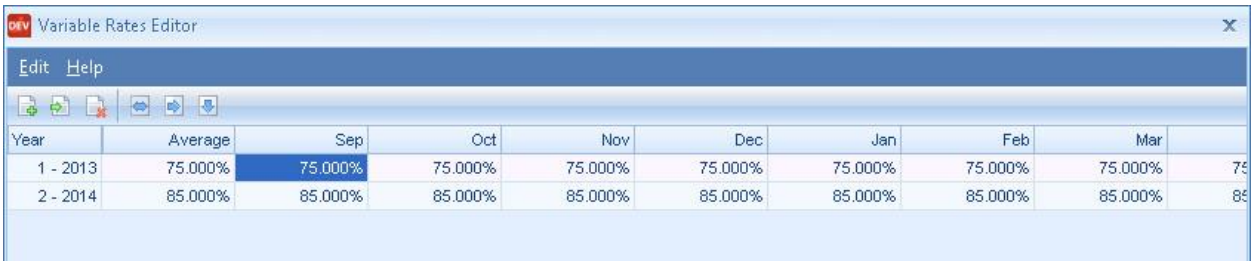
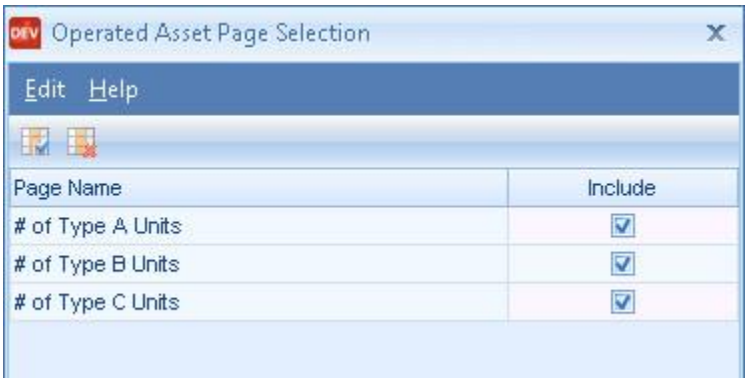


Use this window to specify the pattern of rates throughout the year. Depending on the options you selected in the drop-down lists of the **Calculation Type** and **Rate Type** fields, you will be able to enter either an amount or a percentage.

Selection – this field is enabled for the following Calculation Types:

- Base Income
- Other Income
- % of Section Total
- % of Line Item
- Amount/Occupied Asset
- Amount/Available Asset
- Amount per Unit
- Amount per Activity
- % of Section Total (Net)
- Rate per Linear measure
- Rate per Square measure

Use the popup selection editor to choose which sections, categories or pages of rates will be used for the calculation:



Cost Type – Allows you to select a cost type (either a Revenue or a Cost).

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Inflation/Growth Set – this is used for growing revenues and inflating expenses.

Cap Method – the **Cap Method** is used to select which items will be included in the capitalization of net operating income. The default method *Tenant Rate* is automatically selected when a new line item is created.

Type	Description
None	No capitalization of the operating revenue or expense.
Tenant Rate	Capitalizes the operating revenue or expense using the cap rate on the area record.
Private Rate	Capitalizes the operating revenue or expense using a rate entered for this item.

See Also
Capitalization Method

Capitalization Rate – the private rate used to d using the **Cap Method** option in the Revenue and Expense profiles. Choose either *Tenant Rate* or *Private Rate* to capitalize the item.

Tenant Rate will pick up the capitalization rate from the area record to which the profile is attached. Private Rate will enable you to enter a manual capitalization rate for the item.

When capitalizing, Argus Developer projects for one year beyond the sale date to establish stable revenues and expenses. It will then use this projected years' worth of figures to capitalize the net operating income.

You must choose a capitalization rate for each item of revenue and expense to ensure that the correct net operating Income is capitalized.

This is the same approach as that used in Additional Rent/Sales where each item can be included or excluded from capitalization. This may or may not be necessary for the valuation of the operated assets so may change in the future to have a single capitalization option for the entire profile.

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Entering Costs and Receipts

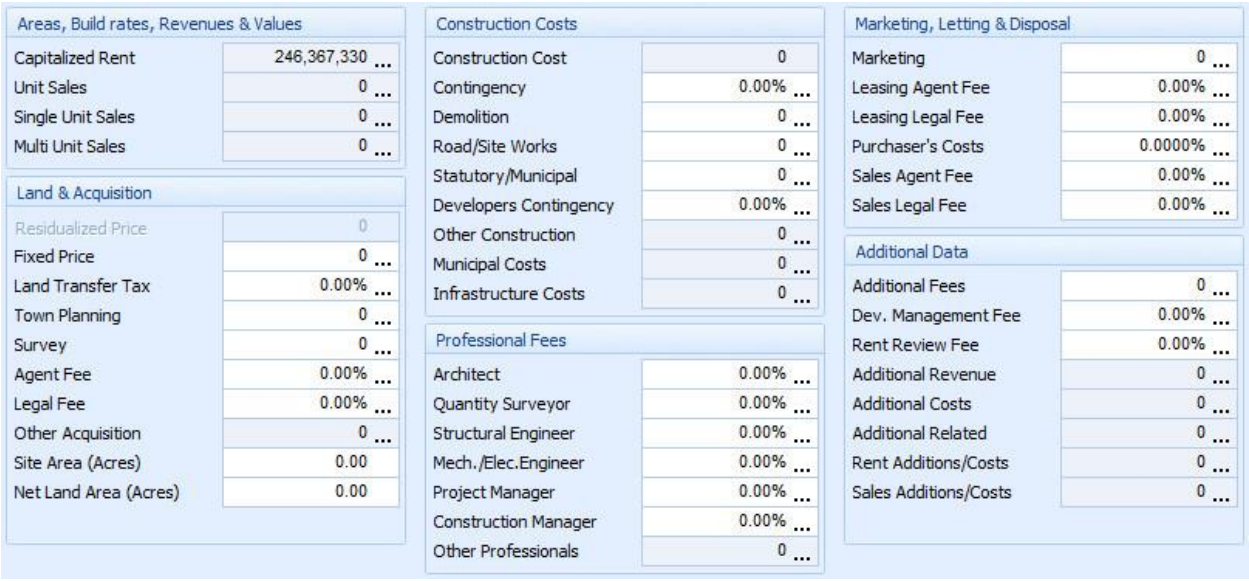
Editing Costs and Receipts

Once the calculation assumptions have been setup and a project time scale has been entered, you can start to create the cost and revenue elements that define the next steps in the project. Costs and revenues can be entered quickly into the Definition screen in as little or much detail as is required. Any data entered into this screen will automatically generate a timed cash flow that can be inspected and modified in the Project Cash Flow screen.

Definition

As the name suggests, the Definition screen is where you go to enter costs and revenues. It shows, at a glance, the numerous inputs for each cost and revenue category. The screen is laid out with group boxes that group all the similar categories together. Moving through the group boxes is a logical and easy way to enter the full range of costs and revenues for a project.

When you have a single phase selected, the data fields will show the rate for each cost or revenue element. When the Merged Phases tab is selected, the data fields will show the sum of all the individual elements from each phase.



Data Fields

One-off costs or fees can be entered directly into the data fields with a light background. To enter a list of costs of the same type, or a single cost that requires entries in multiple periods, you will need to open up its editor.

To open an editor

1. Click the ellipsis button, or press the SPACE bar, to expand the field.

To change the data field layout

1. Select the **ARGUS Button** > Preferences > General tab.
2. Change the number of columns using the Number of Columns for Definition Items editor.
3. Change whether the fields are left-aligned or centered using the **Panels are centered within workspace** option.

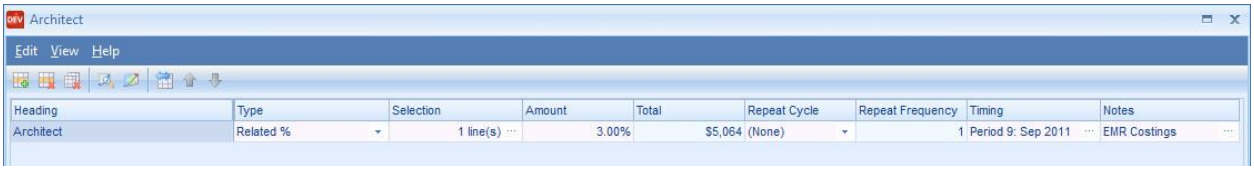
Definition Data Editors

Many of the cost fields on the Definition screen use the same style of editor to create and change the data values. When you know how to use an editor for one category of cost, you will be able to use the same methods for most other costs.

When you open the editor, you'll find that there is already one element created for you. All you need to do is fill in the boxes and click the **OK** button – the program now takes the data element, and from it, generates a timed cash flow.

You'll see that the element already has some of its values filled in. The program creates each new element with a set of default values. This saves time when entering costs, as you need provide only the minimum of information each time.

You can change the default details by making selections in the table, as shown below.



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Creating and Editing Items

You can add an unlimited number of items to any of the schedules. Use the **Add** and **Delete** commands to maintain the list of items – either costs or revenues.

To add a new item

1. Click the **Add New Item** command
2. Enter the heading
3. Select a Type which determines how this item will be calculated.
4. For related types, select the source items in the **Selection** field.
5. Enter the fixed amount or rate in the **Amount** field.
6. Make any changes to the timing using the **Repeat** or **Timing** fields.

To delete an item

1. Select the item you want to delete by clicking into any field.
2. Select the **Delete Item** command.

To delete an item, select the item you want to delete by clicking into any field. Select the **Delete Item** command.

To delete all items

1. Select the **Delete All Items** command.

All items will be removed from the editor, cash flow and reports. It will also be removed from any % Relation selections created by other items.

To move an item

1. Select the item you want to move.
2. Select either the **Up** or **Down** command.

Specifying Calculation Methods

The schedules allow you to calculate the amounts for each item using a variety of different methods. This section shows you how to enter these methods.

To add a fixed amount item

1. Select *Fixed* from the **Type** drop-down.
2. Enter the amount into the **Amount** field.

To relate to another item using a percentage

1. Select the item you want to relate.
2. Change its type to Related %.
3. Open the Selection field and check the options against the item you want to relate to.
4. Enter the percentage rate in the **Amount** field.

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5. The related item will be calculated as a percentage of the total of each individual source item.

Note: You can enter a rate up to 10,000% for situations where you are multiplying a selection or other items by a factor of 1 to 100.

To relate to a gross or net area

1. Select the item you want to relate.
2. Change its Type to pf² - there are several different area measures to choose from.
3. Open the **Selection** field and change the Scope to include All Areas or Selected Areas.
4. Select any individual areas you want to relate to by checking the options in the browser.
5. Enter the rate/ft² in the **Amount** field.
6. The related item will be calculated as a product of rate multiplied by area for each individual source item.

To relate to a number of construction units

1. Select the item you want to relate.
2. Change its type to Rate/Unit.
3. If you want to relate to units in other phases, check the **Include Other Phases** option.
4. Select any individual areas you want to relate to by checking the options in the browser.
5. Enter the rate/unit in the **Amount** field.
6. The related item will be calculated as a product of rate multiplied by number of units for each individual source item.

To relate to a land area

1. Select the item you want to relate.
2. Change its type to Rate / Gross or Net Land Area.
3. The **Selection** field changes to show the total land area (gross or net).
4. Select any individual areas you want to relate to by checking the options in the browser.
5. Enter the rate/land area in the **Amount** field.
6. The related item will be calculated as a product of rate multiplied by gross or net land area for the current phase.

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To multiply a rate by a number of units

1. Select the item you want to relate.
2. Change its type to Multiply Rate by Units.
3. Open the **Selection** field and enter the Number of Units and Unit Description.
4. Enter the rate per number of units area in the **Amount** field.
5. The item will be calculated as the number of units x unit rate.

To repeat a cost at a regular frequency

1. Select *Monthly, Quarterly, Semi-Annual, Annual, or Custom* from the **Repeat Cycle** drop-down.
2. If a custom repeat cycle is entered, enter the frequency at which the cost is repeated – from 1 to 60 months.
3. If the cost is normally distributed over one of the development stages in Time Scale & Phasing, it will be automatically distributed using the Repeat Cycle and Frequency.
4. If the cost is normally placed in a single period, you can change the timing and distribution using the method described in the next topic.

To change the start date, end date or distribution

1. Open the Data Distribution editor by clicking the **Timing** ellipsis button.
2. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
3. Use the Start Date, Distribution and End Date group boxes to change the timing.

Entering Notes

The schedule has a field where you can enter free-form notes about each item. The notes can be multi-line, accept only plain text without any formatting, and can be of any length up to 4096 characters.

The notes can be printed as part of a report that lists each line in the cash flow – the Cash Flow Notes Report.

To enter notes

1. Click the **Notes** ellipsis button.
2. Enter the notes into the popup editor.
3. Click the **OK** button.

Additional Financial Data

To make entering costs and revenues easier, each editor shows only the minimum number of fields. When you need to change some of the other options that affect how the item is calculated in the cash flow - inflation, interest or sales tax - there are some additional fields that you can use.

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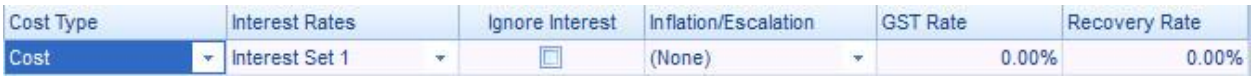

To show additional finance fields

1. Select the **View Financial Data** command.

A set of columns will appear at the end of the table. When you switch on this view, it remains set for all the other editors. You need make this change only once to see these additional fields.

Cost Types

ARGUS Developer keeps the sum of all costs and of all revenues as two separate balances. In general, all costs are added to the cost balance and all revenues are added to the revenue balance.

There are some situations in which it is useful to make deductions from each of these balances, rather than adding to them. The program allows you to make these deductions through the **Cost Type** drop-down field.

To add to the total cost balance

1. Select *Cost* from the **Cost Type** drop-down.
2. The cost will be added to the balance of all cost types. This is the default setting and you won't often need to change it.

To deduct from the total cost balance

1. Select *Revenue (Reducing Cost)* from the **Cost Type** drop-down.
2. The cost will be deducted from the balance of all Cost types.

To add to the total revenue balance

1. Select *Revenue* from the **Cost Type** drop-down.
2. The revenue will be added to the balance of all revenue types. This is the default setting and you won't often need to change it.

To deduct from the total revenue balance

1. Select *Cost (Reducing Revenue)* from the **Cost Type** drop-down.
2. Instead of adding the cost to the balance of all cost types, it will instead be deducted from the balance of all revenues.

Interest and Inflation

If you are working in the Basic Interest finance mode, there are two fields that allow you to set individual interest rates on each item. Inflation rates are always available, regardless of the finance mode.

To apply interest rates

1. Select the interest rate set from the **Interest Rates** drop-down.
2. Interest is calculated on the item in the finance calculations.

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To ignore interest

1. Select the **Ignore Interest** option.
2. The item will be excluded from the interest calculations.

To apply inflation

1. Select the inflation rate set from the **Inflation/Escalation** drop-down.
2. Inflation or escalation is applied to the item before it is used in the finance calculations.

Sales Tax

Sales tax can be calculated automatically whenever a cost is incurred by using the two tax rate fields. The tax is calculated, and optionally recovered, using the settings made on the GST screen.

To calculate sales tax for an item

1. Enter the rate of tax into the **GST Rate** field
2. Wherever the cost incurred in the cash flow, its amount is multiplied by the tax rate and placed into a sales tax account.
3. Interest is calculated on the sales tax as part of the finance calculations.

To recover sales tax for an item

1. Enter the amount of tax that is recoverable into the **Recovery Rate** field
2. The proportion of tax recoverable is calculated for each recovery period and the sales tax account is reduced.

Note: If you can recover all the tax, enter 100%. If cannot recover any tax, enter 0%.

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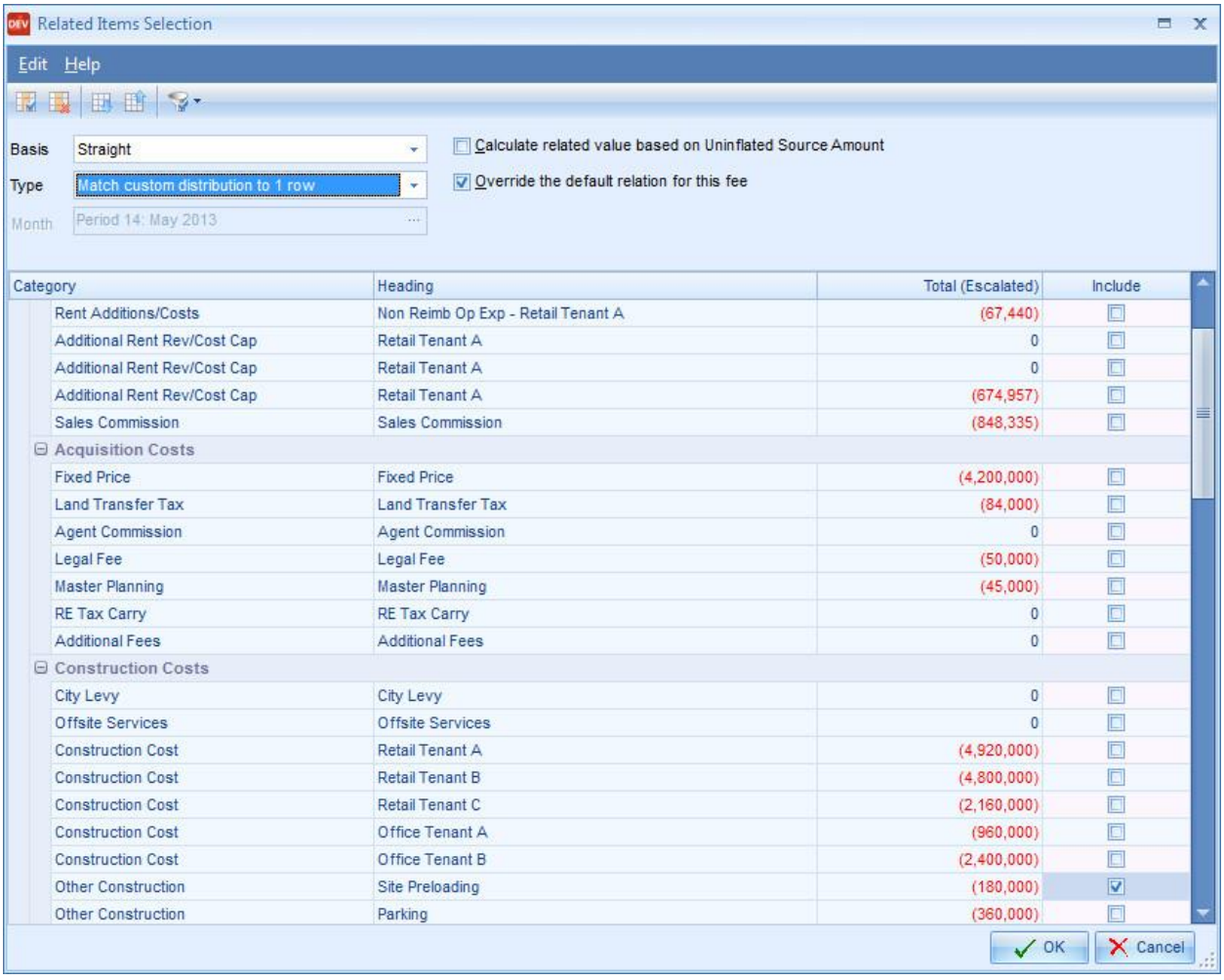
Percentage Related Items

Items that are related to others on a percentage basis can be easily set up in the definition editors.

See Also

Creating and Editing Items

When you want to change the default set up for a percentage related item, you will need to open the related items in the Selection editor by clicking the **Selection** ellipsis button.



To change what the item is related to

1. Select or uncheck the **Include** options in the table
2. The **Override** option at the top of the screen will be automatically checked.

To undo the changes it item selections

1. Un-check the **Override** option.

2. The selections in the Include column in the table will be set to default values.

Calculation Basis

A related item's amount is normally calculated as a straight % of the amounts in its selected item list. There are some occasions where you might want to calculate a fee on a grossed up or netted down basis. Changing the calculation basis will achieve this. The table below shows the effect of changing the basis.

Basis	Amount	Related %	Total
Straight	10,000	x 10%	1,000
Grossed up	10,000 x 110%	x 10%	1,100
Netted Down	10,000 / 110%	x 10%	909

To change the relation calculation basis

1. Select *Straight*, *Grossed Up* or *Netted Down* from the **Basis** drop-down.

Calculation Type

An item can be related to a range of other items using four basic methods:

1. A row to row relation, where an item is related to a range of other items. Its timing and distribution is aligned to its source range.
2. A period to row relation, where an item is related to a range of other items. Its calculated amount is placed in a single period and the timing is not linked to the source range.
3. A period to period relation, where an item is related to the same period across a range of other items. Its calculated amount is placed in a single period.
4. A row to row relation with a custom distribution, where an item is related to a range of other items. You chose its timing and distribution.

To relate a row to another set of rows

1. Select *Match period by period to many rows* from the **Type** drop-down.
2. Select the source items by checking the **Include** options.

To relate a period to another set of rows

1. Select *Match to many rows* from the **Type** drop-down.
2. Click the **Month** ellipsis button and enter a period from the **Date Picker**.
3. Select the source items by checking the **Include** options.

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To change the relation calculation basis

1. Select *Match period to period* from the **Type** drop-down.
2. Click the **Month** ellipsis button and enter a period from the **Date Picker** field.
3. Select the source items by checking the **Include** options.

To relate a row to another set of rows with custom distribution

1. Select *Match custom distribution to many rows* from the **Type** drop-down.
2. Select the source items by checking the **Include** options.
3. Close the selection editor by clicking the **OK** button
4. Change the distribution using the Data Distribution editor.

To remove any relations and calculate zero amount

1. Select *Not Related* from the **Type** drop-down. The list of source items will be removed by automatically un-checking each **Include** option.

When you close the selection editor, you will be asked how the program should treat the item. You can either keep the percentage rate so that you can change the related source list in future, or you can convert the related item to a fixed amount and remove all related item options.

Note: You can change the item back to a related basis at any time.

Rate per Area Related Items

Items that are related to others on a rate/ft² or rate/m² basis can be easily set up in the definition editors. The calculations are based on the area definitions in the Capitalized Rent and Unit Sales area records using four different area descriptions:

- Gross Area
- Net Area
- Additional Area
- Alternate Area

See Also

Creating and Editing Items

To select areas that will be included in this calculation, click on the ellipsis button in the **Selection** field.

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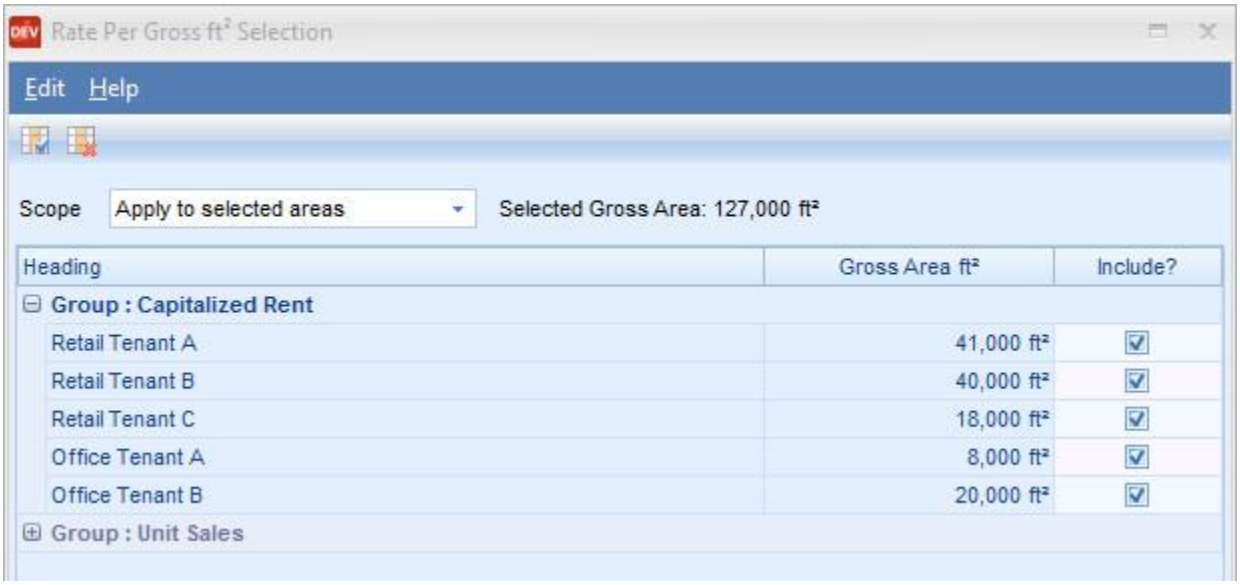

To calculate on the total phase area

1. Select *Apply to all areas* in the drop-down list of the **Scope** field.
2. The Selected label changes to show the sum of all areas in the current phase.

To calculate on selected areas from a phase

1. Select *Apply to selected areas* from the drop-down list in the **Scope** field.
2. Choose the areas by checking the **Include** options.
3. The Selected label changes to show the sum of all selected areas in the current phase.

Note: You can use the **Select All** and **Deselect All** commands to quickly include all areas or clear the selections.

Rate per Unit Related Items

Items that are related to others on a rate/unit basis can be easily set up in the definition editors. The calculations are based on the number of units entered in the Capitalized Rent and Unit Sales area records.

See Also

Creating and Editing Items

To select areas that will be included in this calculation, click on the ellipsis button in the **Selection** field.

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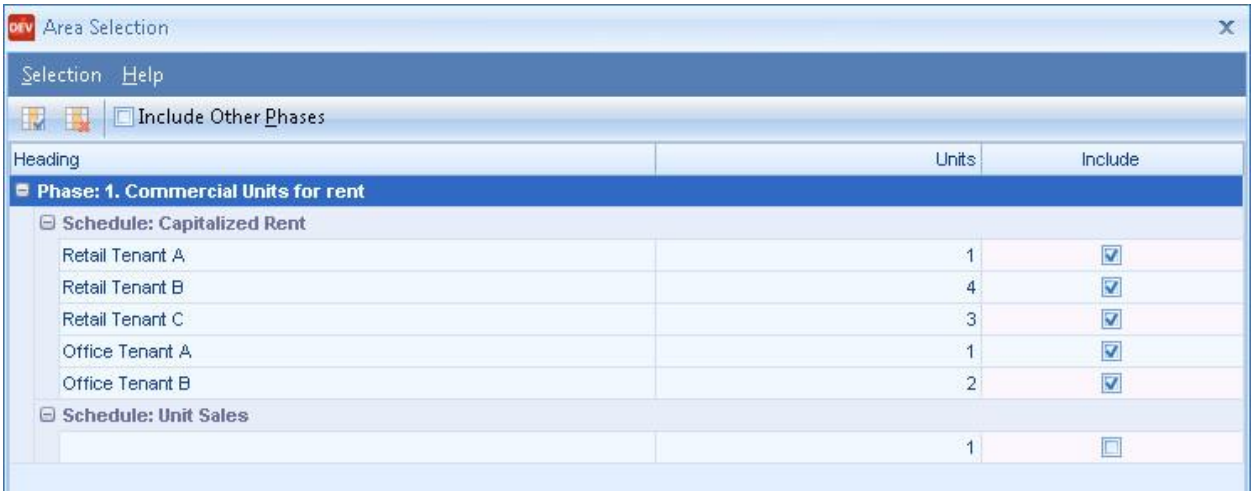

To calculate on the total phase units

1. Un-check the **Include Other Phases** option.
2. Choose the units by checking the **Include** options.

To calculate on selected areas from any phase

1. Select the **Include Other Phases** option.
2. Choose the units by checking the **Include** options.

Note: You can use the **Select All** and **Deselect All** commands to quickly include all areas, or clear the selections.

Rate per Rent on Leasing

Leasing Agent and Leasing Legal fees may be defined as a percentage of the Market Rental Value at the start of a tenant's lease. The fee may be calculated on either the Gross or Net MRV.

To select tenants that will be included in this calculation, click on the ellipsis button in the **Selection** field.

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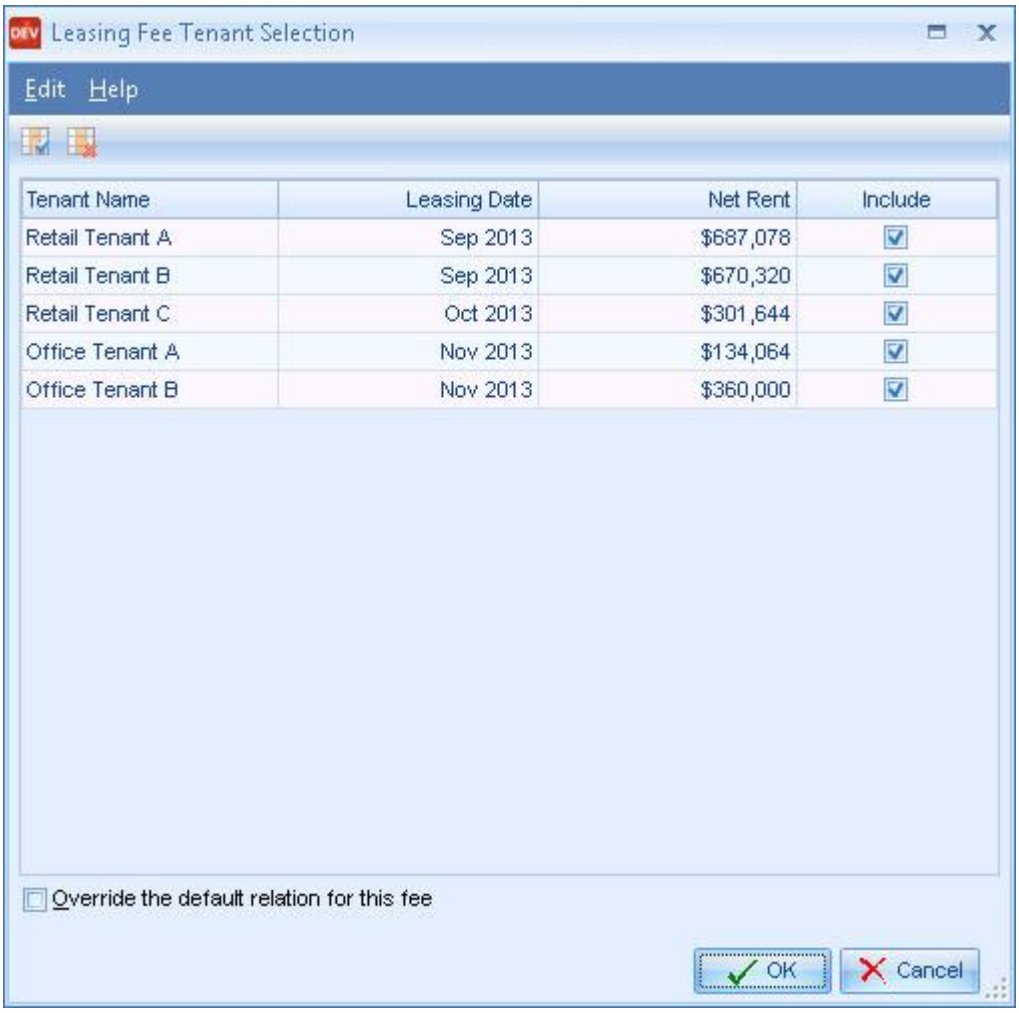

The default setting for this type of fee is to include all tenants.
To include selected tenants only.

1. Select only the tenants you want to include.
2. Answer *Yes* when asked to override the fee selection.

To include all tenants

1. Un-check the **Override the default relation** for this fee option.
2. Answer *Yes* when asked to reset the fee selection.

To calculate on the Gross Market Rental Value

1. Close the tenant selection editor then the parent data editor.
2. Select the **Assumptions** command from the Calculation Assumptions group on the Home tab.
3. On the Calculations tab, check the **Gross MRV** radio button in the Letting/Rent Review Fees calculated on group box.

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4. Click the **OK** button.

To calculate on the Net Market Rental Value

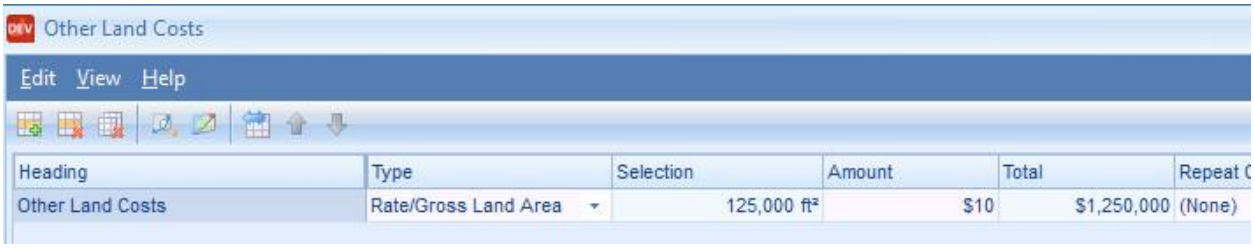
1. Close the tenant selection editor then the parent data editor.
2. Select the **Assumptions** command from the Calculation Assumptions group on the Home tab.
3. On the Calculations tab, check the MRV Net of Assumptions radio button in the Letting/Rent Review Fees calculated on group box.
4. Click the **OK** button.

Rate / Gross Land Area

Items that are related to the gross land area or the net land area can be easily set up in the definition editors. The calculations are based on a rate multiplied by the site area in the current phase.

See Also

Creating and Editing Items



To calculate a fee based on gross land area

1. Select *Rate/Gross Land Area* in the drop-down list of the **Type** field.
2. Enter the rate in the **Amount** field.

To calculate a fee based on net land area

1. Select *Rate/Net Land Area* in the drop-down list of the **Type** field.
2. Enter the rate in the **Amount** field.

Land Transfer Tax

The land transfer tax is usually calculated as a percentage of the land cost where the percentage is calculated as:

- a flat-rate percentage
- a percentage that varies according to the land cost

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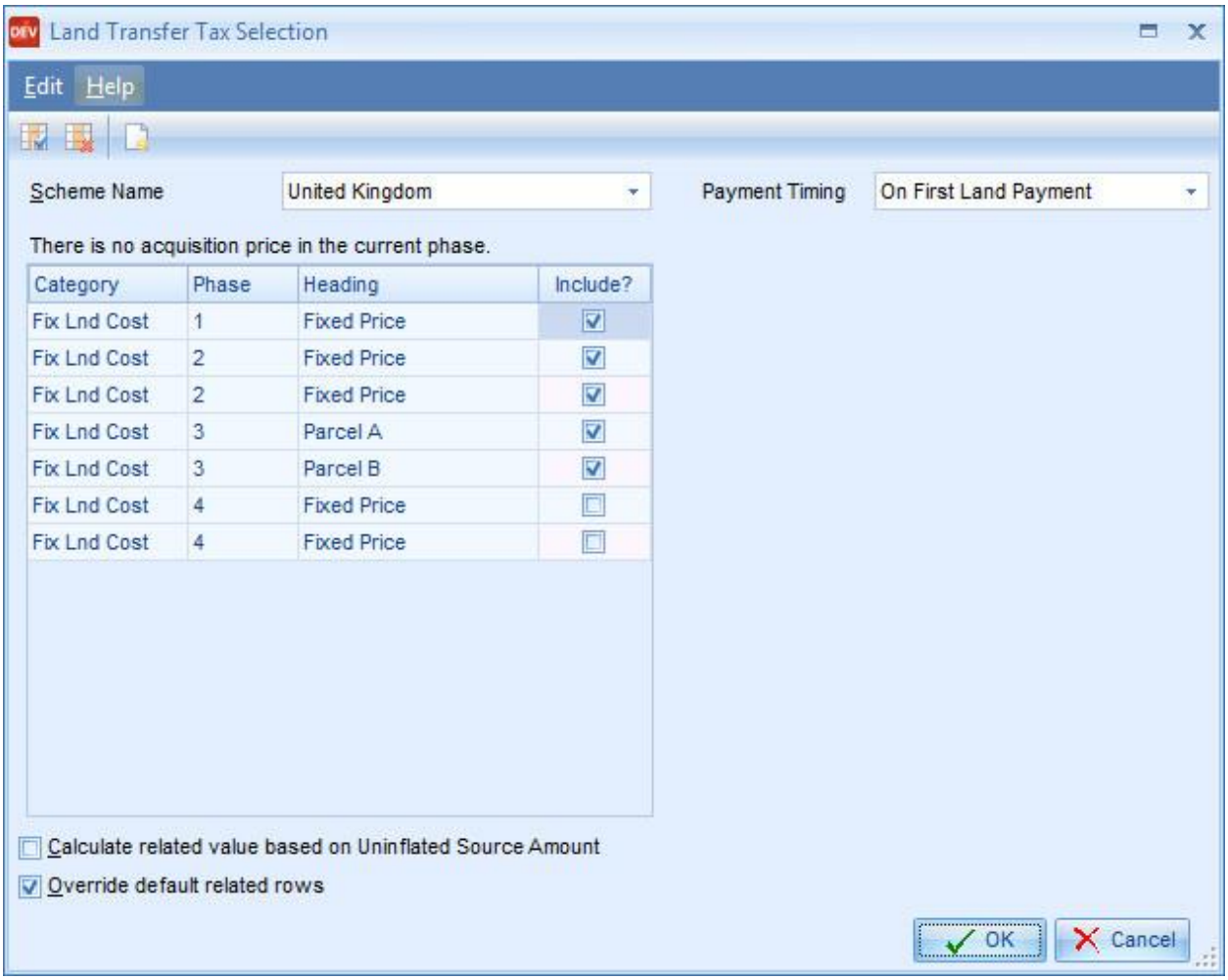

To enter a flat rate percentage tax

1. Select *Related %* in the drop-down list of the **Type** field
2. Enter the tax rate in the **Amount** field

To enter a variable percentage tax

1. Select *Land Transfer Tax* in the drop-down list of the **Type** field.
2. Click the **Selection** ellipsis button.
3. Select the name of the scheme of variable tax rates in the drop-down list of the **Scheme Name** field.
4. For projects with multiple land costs, select which costs will have this tax applied by checking the **Include** options.
5. Select where the tax will be incurred in the cash flow in the drop-down list of the **Payment Timing** field – *First payment*, *Final payment*, or on *Each payment*.
6. Click the **OK** button.

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To change the rates in any scheme

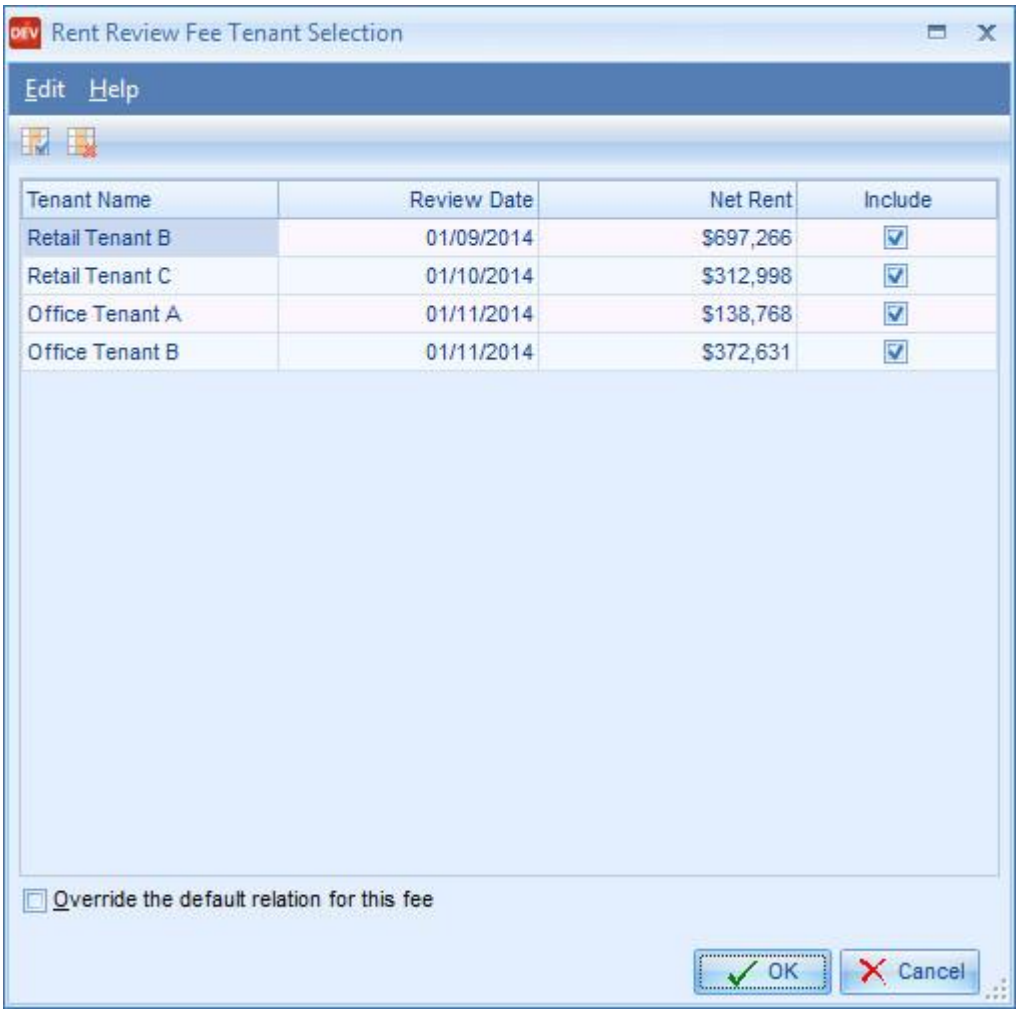
1. Select the **Edit Schemes** command.
2. Make any changes in the Land Transfer Tax Schemes editor.
3. Click the **OK** button.

Related to Rent Review Dates

Rent Review Fees, which are payable on each lease review date during the cash flow projection period, can be easily set up in the definition editors. The calculations are based on a percentage rate multiplied Market Rental Value on review.

See Also

Creating and Editing Items



To enter a rent review fee

1. Select *Related to RR Dates* in the drop-down list of the **Type** field.
2. Click the ellipsis button in the **Selection** field.

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3. Select the tenant names by checking the **Include** options.
4. Click the **OK** button.
5. Enter the percentage fee rate in the **Amount** field.

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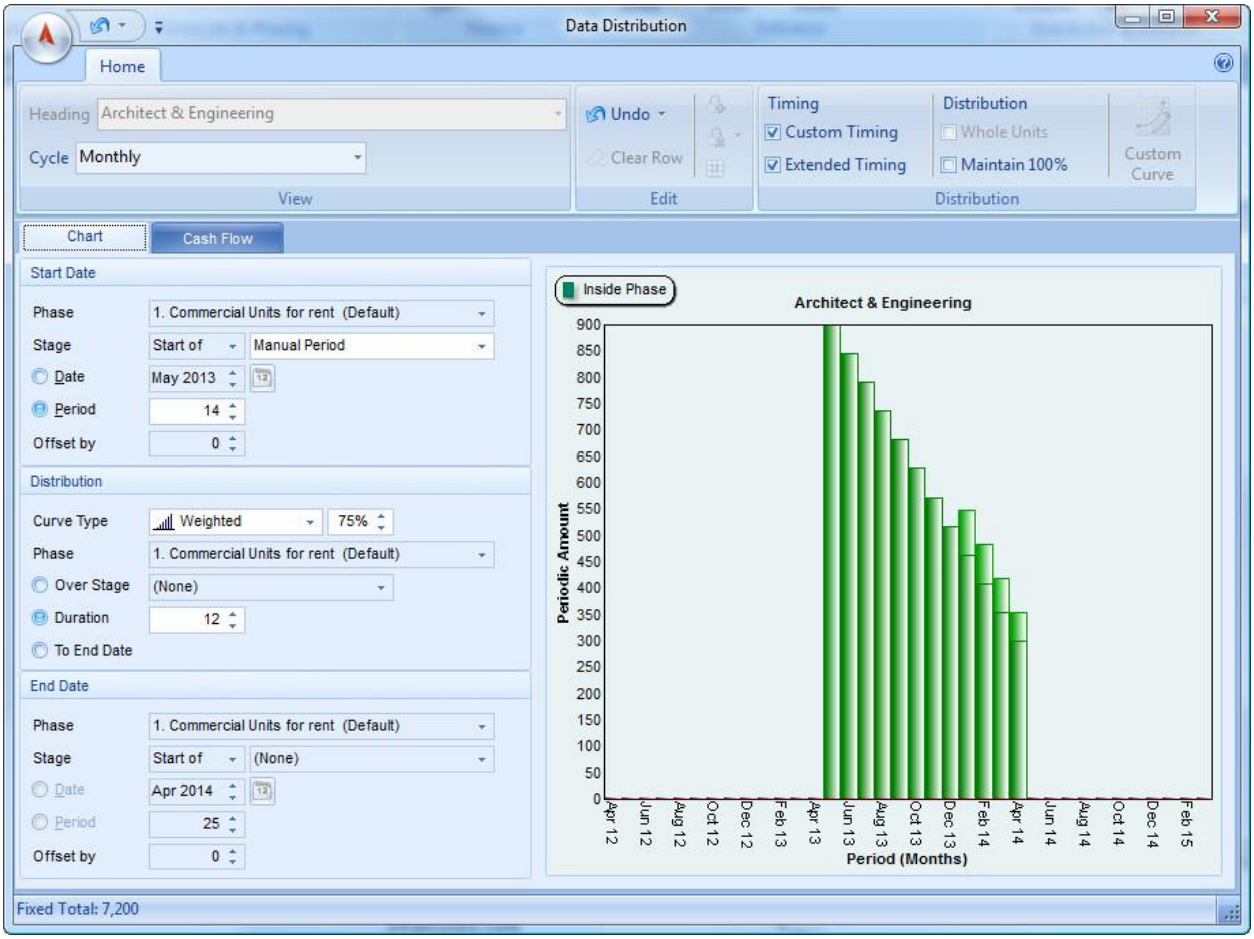
Timing and Distribution

When each item is created, its start date, end date and distribution are automatically assigned default values. The Time scale & Phasing inputs are used to create the item's timed cash flow which can be inspected in the Cash Flow screen. The settings can be changed for any item, giving you full control over how the amounts distributed along the cash flow line.

As you change the timing and distribution options, the graph on the right side of the screen is updated automatically, giving you an instant overview of the timing and distribution.



Timing

To change the timing of an item

1. Select the **Data Distribution** command, or click the **Timing** ellipsis button
2. Make any changes on the Data Distribution screen then save and close.
3. The changes will be reflected in the cash flow and the **Total** amount field, updated to include any inflation.

To reset the timing of an item to its default setting

1. Select the *Undo* option in the drop-down list in the Edit group on the Home tab.
2. Select the **Reset Timing** command.
3. Answer **Yes** when asked to confirm the reset.

To undo all changes made in the screen

1. Select the *Undo* option in the drop-down list in the Edit group on the Home tab.
2. Select the **Undo All Changes** command.
3. Answer **Yes** when asked to confirm the reset.

Start Date

The start date of an item can be timed to a precise date or period, or, for tighter integration with the project time scale, it can start when either a phase or development stage starts or ends.

To start an item on a fixed date

1. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
2. Select the **Date** button. The **Stage** field drop-down will be changed automatically to *Manual Date*.
3. Select the date using the **Date Spin** buttons, or the **Date Picker** command.
4. If the time scale of the project is changed, this item can maintain its fixed date, or move proportionally.

To start an item in a fixed period

1. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
2. Select the **Period** radio button. The **Stage** drop-down will be changed automatically to *Manual Period*.
3. Select the period using the **Period** spin button.
4. If the time scale of the project is changed, this item can maintain its fixed period or move proportionally.

To start an item when a development stage starts

1. Select the **Custom Timing** and **Extended Timing** options in the Custom Timing group on the Home tab.
2. Select the name of the development stage from the drop-down list in the **Stage** field.
3. Choose a phase in the drop-down list of the **Phase** field if you want the item to start based on the timing in another phase.
4. If you want the item to start when another stage finishes, select the *End of* option in the **Stage Timing** drop-down list.

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5. If you want to adjust the timing to be earlier or later than the stage date, use the **Offset** spin button to add a lead-in or a lag in months.

Distribution

The distribution of data for any item can be controlled using a variety of automatic curve types built into the program. For the ultimate control, there is a cash flow option that allows precise placement of amounts and percentage values along a cash flow line.

To change the distribution method

1. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
2. Select the distribution method in the drop-down list of the **Curve Type** field.

To create a weighted straight-line distribution

1. Select the *Weighted* option in the drop-down list of the **Curve Type** field.
2. Select the incline of the line from 0% to 100%.
3. 0% - 49% calculates a low-to-high incline, 50% calculates a flat incline, 51% to 100% calculates a high-to-low incline.

To calculate a distribution on a standard S-Curve

1. Select S-Curve from in the drop-down list of the **Curve Type** field.
2. The curve will be calculated automatically, building up its profile slowly at the start, increasing at a faster rate in the middle, and decreasing slowly towards the end.

To distribute for a fixed duration

1. Select the **Duration** radio button.
2. Enter the fixed duration using the **Duration** spin button.

To distribute for the duration of a development stage

1. Select the **Custom Timing** and **Extended Timing** options in the Custom Timing group on the Home tab.
2. Select the **Over Stage** radio button.
3. Choose the stage in the drop-down list of the **Over Stage** field.
4. Choose a phase in the drop-down list of the **Phase** field if you want the item to be distributed based on the timing in another phase.

To distribute to the end of a stage in a different phase

1. Select the **Custom Timing** and **Extended Timing** options in the Custom Timing group on the Home tab.
2. Select the **To End Date** radio button – the End Date group box below will become enabled.
3. Make any settings required for the end date using the methods described in the End Date topic below.

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End Date

The end date of an item can be timed to a precise date or period, or, for tighter integration with the project time scale, it can end when either a phase or development stage starts or ends.

To end an item on a fixed date

1. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
2. Select the **To End Date** radio button in the Distribution group box.
3. Select the **Date** radio button. The **Stage field** will be changed automatically to **Manual Date**.
4. Select the date using the **Date** spin buttons, or the **Date Picker** command.
5. If the time scale of the project is changed, this item can maintain its fixed date, or move proportionally.

To end an item in a fixed period

1. Select the **Custom Timing** option in the Custom Timing group on the Home tab.
2. Select the **To End Date** radio button in the Distribution group box.
3. Select the **Period** radio button. The **Stage** drop-down will be changed automatically to **Manual Period**.
4. Select the period using the **Period** spin button.
5. If the time scale of the project is changed, this item can maintain its fixed period or move proportionally.

To end an item when a development stage ends

1. Select the **Custom Timing** and **Extended Timing** options in the Custom Timing group on the Home tab.
2. Select the **To End Date** radio button in the Distribution group box.
3. Select the name of the development stage in the drop-down list in the **Stage** field.
4. Choose a phase in the drop-down list in the **Phase** field if you want the item to end based on the timing in another phase.
5. If you want the item to end when another stage finishes, select the *End of* option in the drop-down list of the **Stage Timing** field.
6. If you want to adjust the timing to be earlier or later than the stage date, use the **Offset** spin button to add a lead-in or a lag in months.

Cash Flow View

The Cash Flow tab allows you to fine tune the way data is distributed along the cash flow line. You can see the amounts and percentage proportions for each period. A graph

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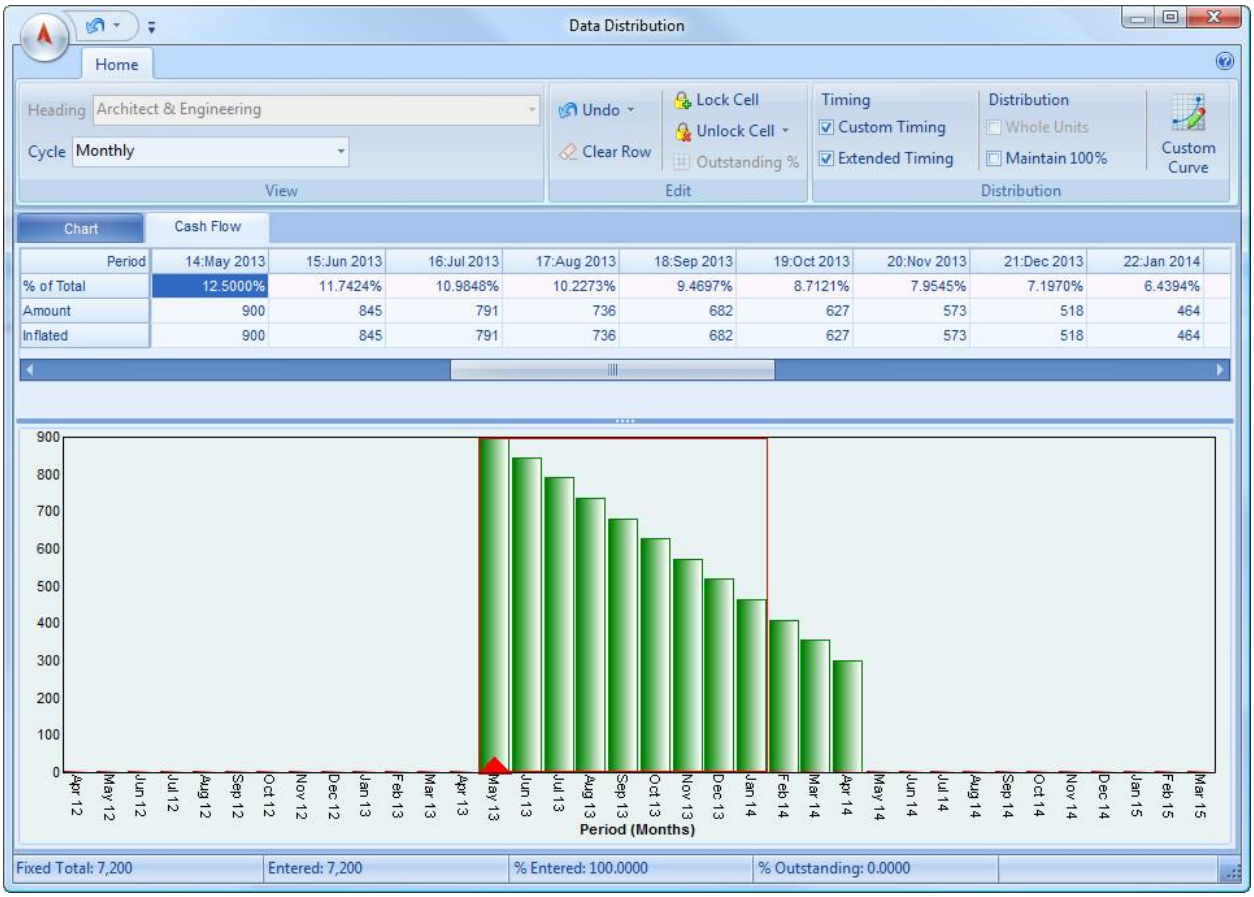
underneath the grid gives you a visual aid to see the distribution as you change amounts or percentages.

The purpose of this editor is to enable you to make changes to the distribution, not to the total amount. If you want to change the total amount, close the editor and make changes to either the rate or the related item selections.



To manually change the distribution

1. Select the Cash Flow tab.
2. Edit either the percentage or the amount

To automatically adjust other cells when you make a change

1. Select the **Maintain 100%** option in the Distribution group on the Home tab.
2. When you make any changes, the program can automatically maintain the correct total amount so that the distribution totals 100%. For example, you might make an up front payment to an architect and want the payments in other periods to reduce in proportion to the change.

To manually maintain a 100% distribution of value

1. Select the **Maintain 100%** option in the Distribution group on the Home tab.
2. Change any percentages or amounts by typing into the cells.

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3. To ensure the total percentage is exactly 100%, right click into a cell and select the **Enter Outstanding %** command.

You can adjust the percentages or amounts in each cell exactly, without the program changing any other data. In this case, you must ensure that the total percentage distribution totals 100%.

To lock a period percentage or amount

1. Right-click in either the percentage or the amount cell.
2. Select the **Lock Cell** command.

You can lock a period so that its percentage or amount will not automatically change when other cells are edited. You can lock either the percentage or the amount but not both in the same period.

To unlock a period percentage or amount

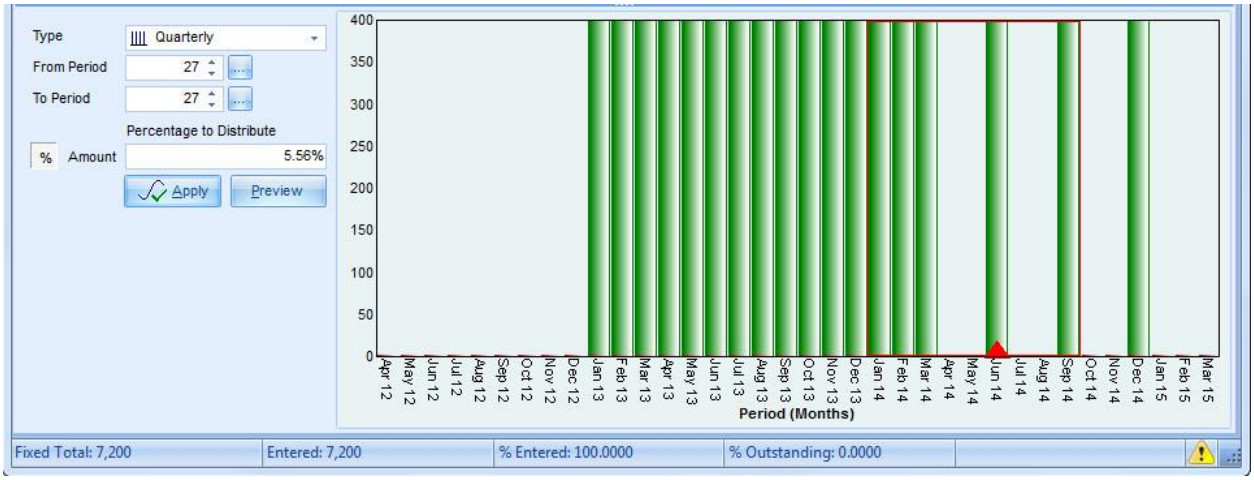
1. Right-click in either the percentage or the amount cell.
2. Select the **Unlock Cell** command.

To lock or unlock a range of periods

1. In the graph, click on the bar of the start of the range you want to change.
2. Hold the mouse button down and drag to the end of the range and release.
3. Select either the **Lock Cell** or **Unlock Cell** command.

Custom Curve Distribution

If you want to create distributions where some of the data is distributed using a different curve type from the rest of the data, the Custom Curve Distribution will achieve this.



Example: You may have a cost that is, by default, distributed evenly across the cash flow but at the end, it is distributed on a quarterly basis. The program does not automatically handle this kind of distribution but you can create it using the procedure described below.

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To create different distributions for the same item

1. Select the **Maintain 100%** option in the Distribution group on the Home tab.
2. Select the **Custom Curve** command from the Distribution group on the Home tab.
3. Select the range of periods over which you want the even distribution – click into the graph and drag to select the range.
4. Select the *Monthly* option in the drop-down list of the **Type** field.
5. Click the **Apply** button.
6. Select the range of periods over which you want the quarterly distribution – click into the graph and drag to select the range.
7. Select the *Quarterly* option from the drop-down list in the **Type** field.
8. Click the **Apply** button.
9. The graph changes when the **Apply** button is clicked.

To distribute a fixed % over a range

1. Select the **Maintain 100%** option in the Distribution group on the Home tab.
2. Select the **Custom Curve** command from the Distribution group on the Home tab.
3. Select the range of periods over which you want the fixed % distribution – click into the graph and drag to select the range.
4. Click the **% Amount** button.
5. Enter the Percentage to Distribute.
6. Click the **Apply** button.

To distribute a fixed amount over a range

1. Select the **Maintain 100%** option in the Distribution group on the Home tab.
2. Select the **Custom Curve** command from the Distribution group on the Home tab.
3. Select the range of periods over which you want the fixed amount distribution – click into the graph and drag to select the range.
4. Click the **Amount** button.
5. Enter the **Amount** to Distribute.
6. Click the **Apply** button.

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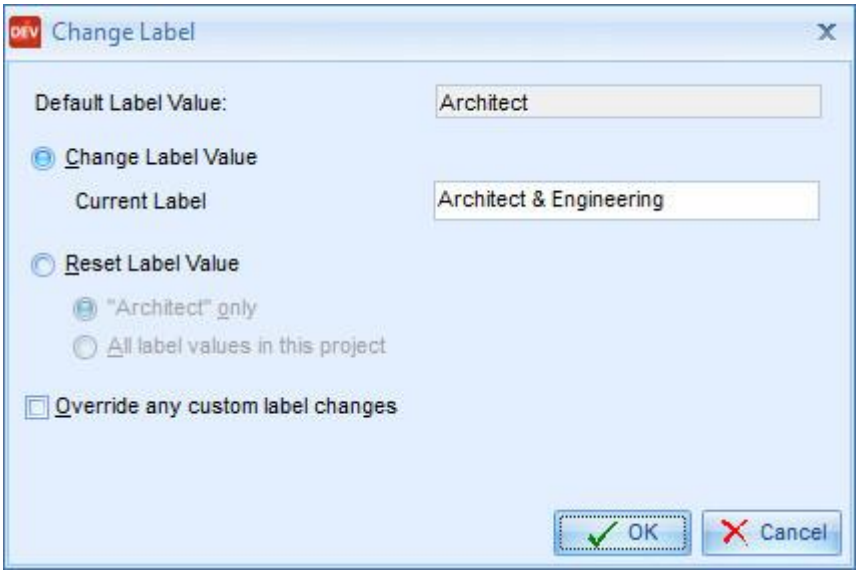
Custom Label Descriptions

You can change the labels used to describe many of the fields you see on the Definition screen. When you change a label, the change is immediately reflected in the Cash Flow, Summary, and Reports.

Changing a label can be done either directly on the Definition screen, or from within one of the data editors.



To change a label on the Definition screen

1. Select the label by double-clicking its name.
2. The **Change Label Value** radio button should already be selected.
3. Enter the new label description into the **Current Label** field.
4. Click the **OK** button.

To change the label for Fixed Price on the Definition screen

1. Select the label by double-clicking its name.
2. The **Change Label Value** radio button should already be selected.
3. Enter the new label description that will appear in the Definition and Cash Flow screens into the **Definitions & Cash Flow** field.
4. Enter the new label description that will appear in Reports into the **Reports** field. This may be different to the label on the Definition and Cash Flow screens.
5. Click the **OK** button.

To reset a single label to its default description

1. Select the label by double-clicking its name.

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2. Select the **Reset Label Value** radio button.
3. Select the **Label Description** only radio button.
4. Click the **OK** button.

To reset all labels to their default description

1. Select the label by double-clicking its name.
2. Select the **Reset Label Value** radio button.
3. Select the *All Label* values in this project radio button.
4. Click the **OK** button.

Note: This option will reset all label descriptions in the project.

To reset all custom labels to their default description

If you have custom label descriptions for individual data items in and editor, you can reset them all to the default description. For example, you may have a list of architect fees, each with different labels that you want to reset.

1. Open the data editor.
2. Select the **Change Label** command.
3. Select the **Reset Label Value** radio button.
4. Select the **Label Description Only** radio button.
5. Select the **Override any custom label changes** option.
6. Click the **OK** button.

Note: If you reset the labels using these options on the Definitions screen, the reset command will reset all labels, including any individual custom changes, for the project.

To change a label from a data editor

1. Select the **Change Label** command.
2. The **Change Label Value** radio button should already be selected.
3. Enter the new label description into the **Current Label** field.
4. Click the **OK** button.

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Acquisition Costs

Acquisition Costs

This section describes the entry of all costs associated with the site acquisition.

Acquisition Price

You can enter the Acquisition Price in one of three ways:

1. Set a residual target and let the program calculate the acquisition price automatically.
2. Enter the acquisition price directly into the **Fixed Price** field on the Definitions screen.
3. Click on the ellipsis button in the **Fixed Price** field then enter a schedule of known land acquisition prices. This method is useful where parcels of land are acquired separately, but where you still need a residual site value to complete the development. In this case, you will also need to set a Residual Target.

Methods 1 and 2 assume that the acquisition cost will occur in the first period of the purchase stage defined in the Time Scale and Phasing screen. As with all costs and receipts, however, you can reschedule the purchase to take place in any period of the cash flow.

If you have set a residual target, the acquisition price is calculated automatically and cannot be modified. A flag indicating Residualised Price will be shown next to the value.

If the acquisition price is known, you may enter the value in the **Fixed Price** field.

If you have entered a schedule of fixed acquisition prices, the **Fixed Price** field shows the total of all fixed purchases.

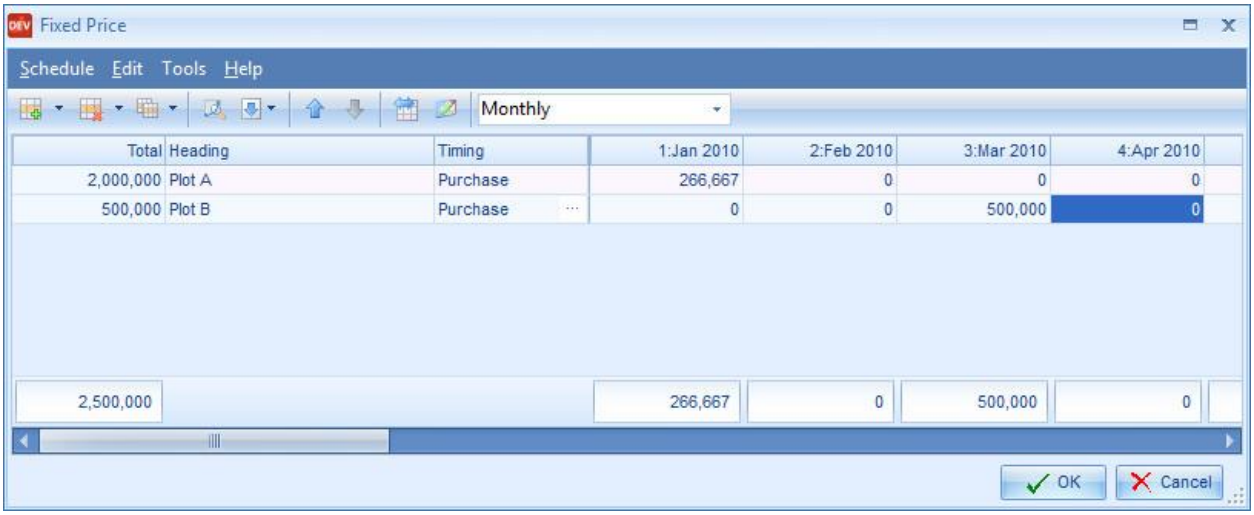
Fixed Acquisition Price

ARGUS Developer allows a mixture of residual and fixed land costs within each phase. You could set up the fixed acquisitions independently of any residual land cost. The fixed acquisition price schedule is intended for those types of development where parcels of land must be acquired separately in order to complete the acquisition of the entire site.

Any stamp duty and acquisition fees will be extended to include fixed land costs.

To enter the fixed land costs, click on the **Fixed Price** ellipsis button.

The fixed acquisition price editor is displayed, into which you can enter the periodic amounts for each plot purchase.



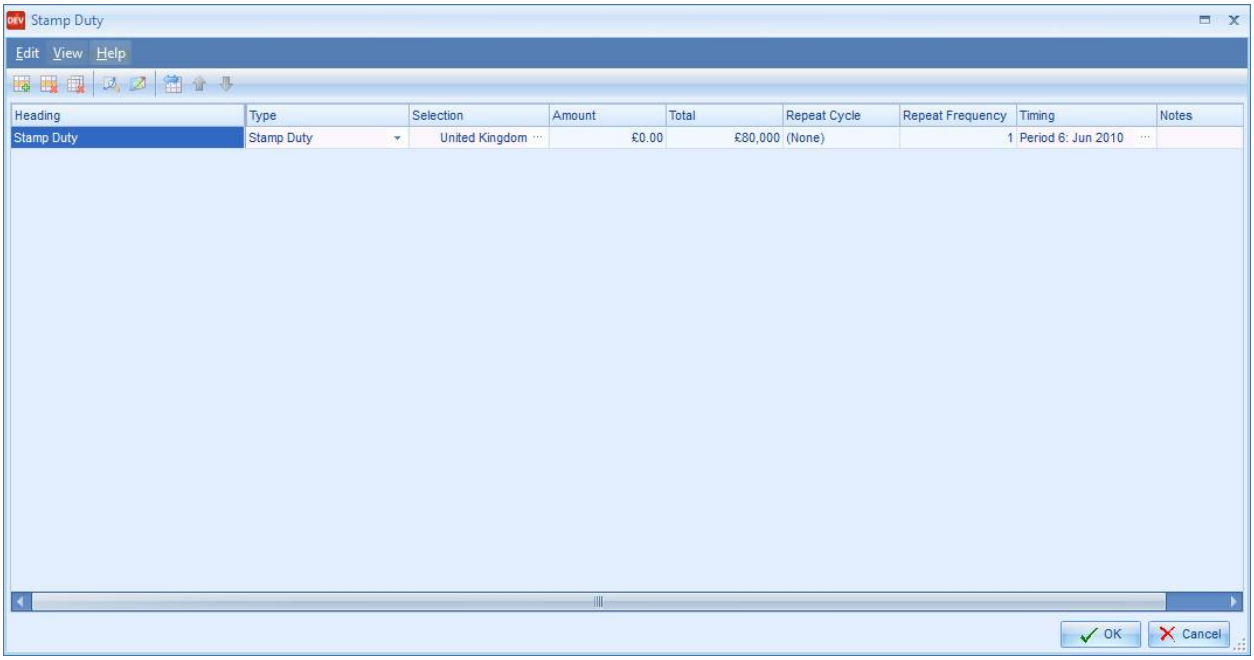
See Also:

Editing Data

Stamp Duty

This can be entered in various different ways:

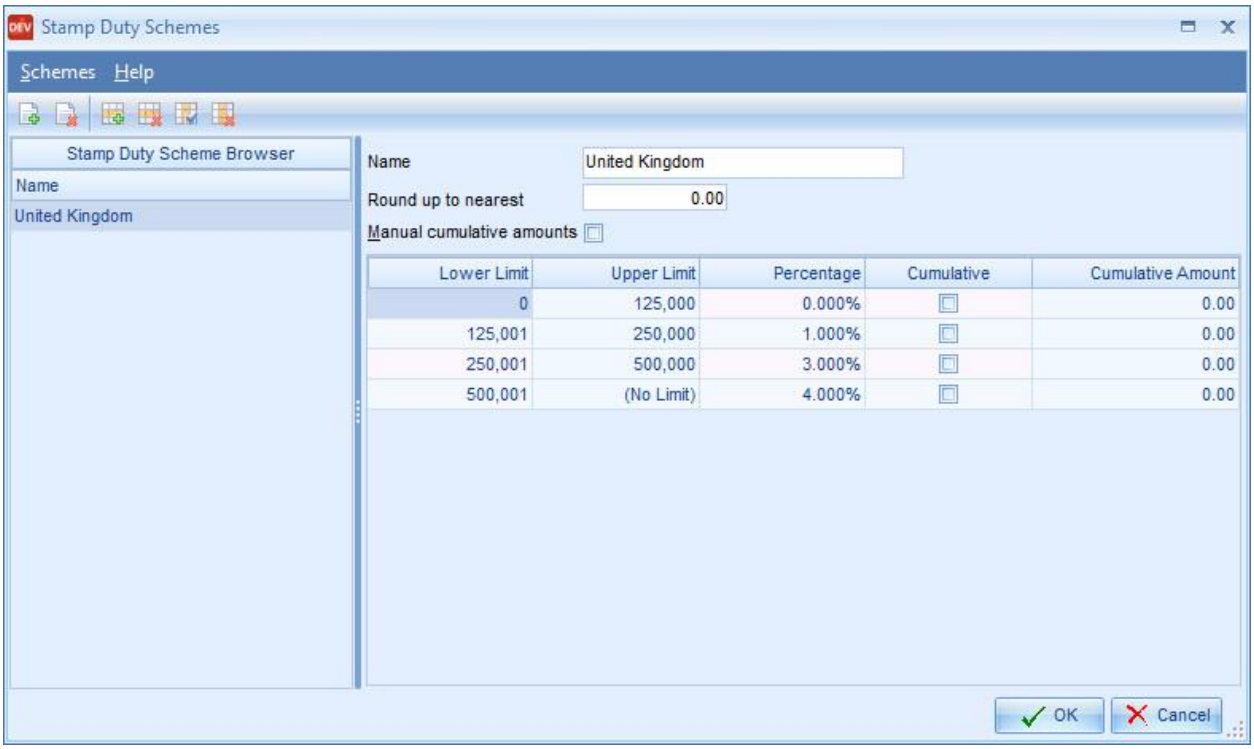
- Using customized bandings (see below for further explanation)
- As a percentage of Acquisition Price
- As a fixed amount
- As a rate per square foot or meter
- As an amount per unit



See Also

Editing Data

ARGUS Developer allows you to enter unlimited bandings where the basis of tax is a set of percentages based on stepped thresholds. To set up bandings, select the **Stamp Duty** command from the Templates group on the Configuration tab.



To Add a Scheme

Select the **Add Scheme** command. The cursor will be moved to the new row in the browser list. Enter a name for the scheme. The name will appear in any of the drop-down lists where a stamp duty scheme must be selected.

Lower Limit
This is the lower limit of land prices to which this band applies.

Upper Limit
This is the upper limit of land prices to which this band applies.

Percentage
This is the percentage tax rate that will be applied to any land price that lies between the lower and upper limits.

Cumulative
In some countries, the tax is a continual accumulation from one band to the next as opposed to a single percentage applied to the total value. By checking the Cumulative box, ARGUS Developer carries forward the amount from the last banding to the next (Example: lower limit $0, upper limit $55,000, Percentage 0.5% [$55,000-$0] * 0.005 = $275 fixed amount carried through to next banding).

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Fixed Amount

This figure is calculated from the previous banding and carried through to be added to next banding (see Cumulative explanation above).

Rounding

The Rounding Amount affects what land value is passed to the stamp duty calculation. The land value is rounded up to the nearest rounding amount to calculate the stamp duty.

Manual Cumulative Amounts

Select this box to enter a manual cumulative amount for the band.

To make all bands in a scheme cumulative

Select the **All Bands are Cumulative** command on the tool bar.

To make all bands in a scheme Non-Cumulative

Select the **No Bands are Cumulative** command on the tool bar.

To Delete a Scheme

Select the **Delete Current Scheme** command. The cursor will be moved to the new row in the browser list.

Note: If you open a .wcf file containing stamp duty schemes that are not currently saved in your master Stamp Duty file, the Unknown Stamp Duty Schemes window will be displayed. To update your master Stamp Duty file, check the schemes listed in this window and click the **OK** button. This will update the list of stamp duty schemes shown in the Stamp Duty Schemes window.

See Also

Unknown Stamp Duty Schemes

Town Planning and Other Acquisition Costs

Town Planning, Survey, Agent Fee and Legal Fee costs can all be entered in this section of Definition. Please see Editing Data for further details.

Other Acquisition Costs

A schedule is available for defining any other costs associated with the site acquisition. These can be defined as percentage related amounts or fixed amounts. Where a percentage related amount is entered, the value is related to the land cost.

Each cost will be placed at the beginning of the Purchase stage defined in the time scale.

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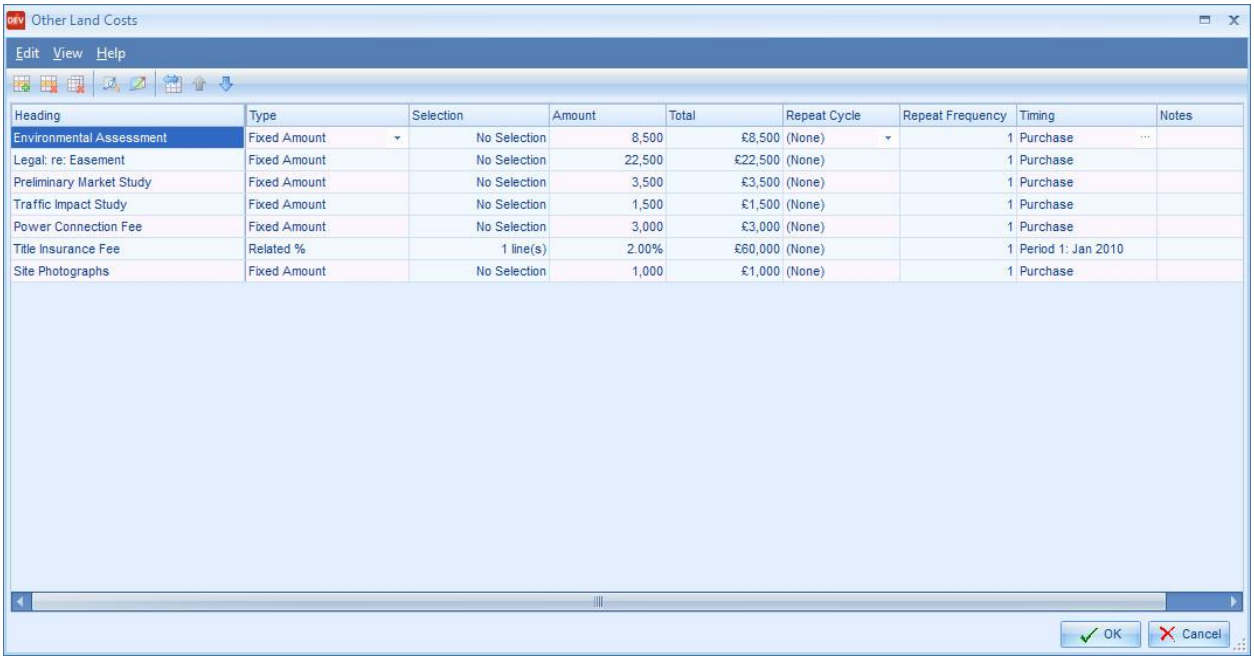

See Also

Editing Data

Site Area

There are two fields for entering site measurements – Site Area and Net Land Area. The units of measurement for the site area fields can be changed using the **ARGUS** Button > Preferences > General tab > Land Measured In.

It is possible to calculate other costs from the site area and the net land area. The site area and net land area figures will be converted when changing between imperial and metric units.

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Construction Costs

Construction Costs

The Gross Construction cost is shown in this field. It is the addition of all construction costs in the Capitalized Rent and Sales schedules. You cannot edit this field.

By default, the Construction cost is distributed over the Construction stage defined in the time scale using the prevailing Construction curve type (see Distribution Assumptions for more information).

Below this, there are several different construction cost fields available, into which you can enter an unlimited number of items. The construction costs are:

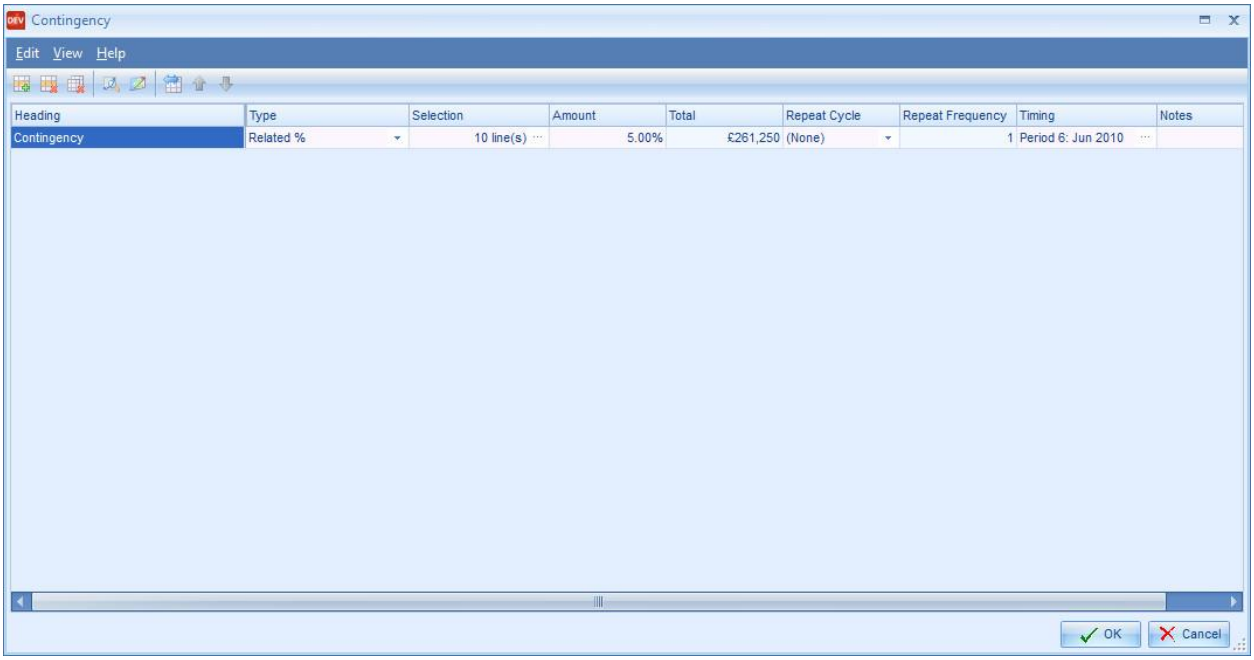
- Contingency
- Demolition
- Road/Site Works
- Statutory/LA
- Developers Contingency
- Other Construction
- Municipal Costs.

To enter a single cost as a fixed amount

Type the amount directly into the field.

To change the cost type or enter more than one cost

Click the ellipsis button to open the Detail Editor.



Please see Editing Data for further details of the common controls in this editor.

Cost Distribution

The following costs will be placed as a single amount in the first period of the Construction stage defined in the time scale:

- Demolition
- Road/Site Works
- Statutory/LA.

These costs will be distributed and the duration of the construction stage defined in the time scale using the prevailing construction curve type:

- Contingency
- Developer's Contingency
- Other Construction
- Municipal Costs.

Other Construction Costs

Click on the **Other Construction** ellipsis button and select the required schedule from the available options:

- Other Construction
- Section 106 Costs
- Section 278 Costs.

You can enter any other construction-related costs into the Other Construction Cost schedule. Each cost can be specified in one of several ways:

- as a fixed amount

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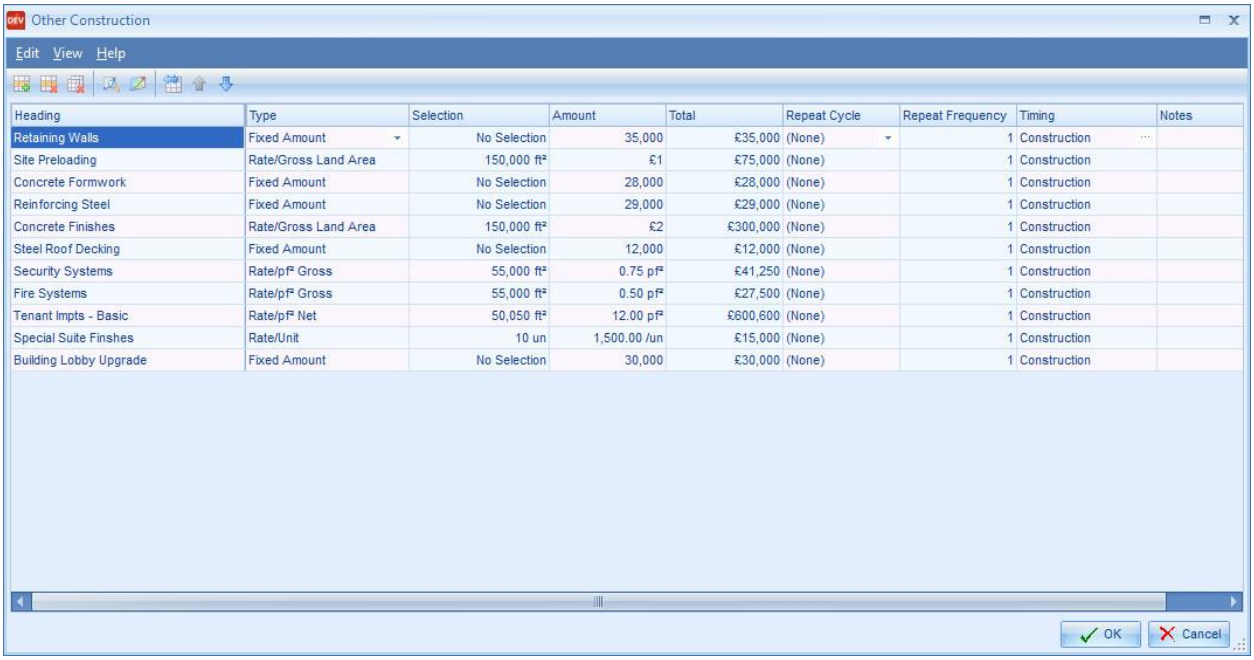
- as a Rate pm^2 Gross (or Rate pf^2 Gross) multiplied by the total gross build area of selected tenants or properties
- as a Rate pm^2 Net (or Rate pf^2 Net) multiplied by the net build area of selected tenants or properties
- as a Rate pm^2 Alternate (or Rate pf^2 Alternate) multiplied by the alternate area of selected tenants or properties
- as an amount per unit multiplied by the total number of units for selected tenants or properties.



Heading	Type	Selection	Amount	Total	Repeat Cycle	Repeat Frequency	Timing	Notes
Retaining Walls	Fixed Amount	No Selection	35,000	£35,000	(None)	1	Construction	
Site Preloading	Rate/Gross Land Area	150,000 ft²	£1	£75,000	(None)	1	Construction	
Concrete Formwork	Fixed Amount	No Selection	28,000	£28,000	(None)	1	Construction	
Reinforcing Steel	Fixed Amount	No Selection	29,000	£29,000	(None)	1	Construction	
Concrete Finishes	Rate/Gross Land Area	150,000 ft²	£2	£300,000	(None)	1	Construction	
Steel Roof Decking	Fixed Amount	No Selection	12,000	£12,000	(None)	1	Construction	
Security Systems	Rate/pf² Gross	55,000 ft²	0.75 pf²	£41,250	(None)	1	Construction	
Fire Systems	Rate/pf² Gross	55,000 ft²	0.50 pf²	£27,500	(None)	1	Construction	
Tenant Impts - Basic	Rate/pf² Net	50,050 ft²	12.00 pf²	£600,600	(None)	1	Construction	
Special Suite Finshes	Rate/Unit	10 un	1,500.00 /un	£15,000	(None)	1	Construction	
Building Lobby Upgrade	Fixed Amount	No Selection	30,000	£30,000	(None)	1	Construction	

See Also

Editing Data

When a cost type is entered the other options are disabled, for example if you enter a fixed amount, the Rate/ pf^2 (or Rate/ pm^2), Area, Rate/Unit and Units cells are all disabled (see graphic above).

When a new item is created, it will automatically have professional fees attached to it. If you do not want professional fees to be calculated for the item, uncheck the **Allow Prof. Fee** option.

Municipal Costs

Click on the **Municipal Costs** ellipsis button to open the Municipal Costs schedule.

See Also

Editing Data

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The same options apply in this schedule to the Other Construction Costs as detailed above.

Infrastructure Costs

Infrastructure Phases

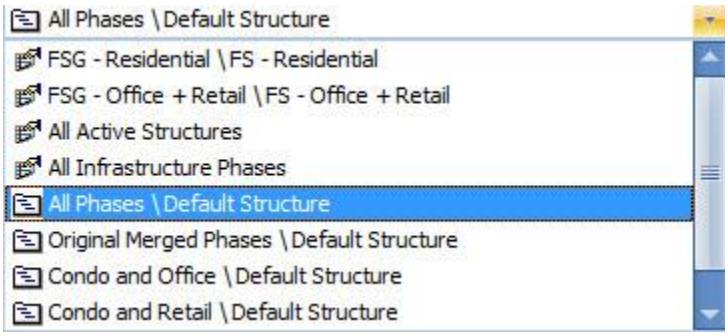
Infrastructure components such as roads and services, which are normally completed before other phases are undertaken, can be defined in special Infrastructure Phases. The costs of constructing the infrastructure can then be automatically apportioned in different ratios to any of the subsequent development phases.

Once the allocations are set up between Infrastructure and Development phases, any changes to the costs in the Infrastructure Phases will be automatically apportioned to the Development Phases.

Infrastructure Phases are created just like any other phase in the Time Scale and Phasing window. A drop-down field called **Phase Data Type** allows you to indicate whether the phase will be used exclusively for holding Infrastructure Costs. When this check box is checked, the phase will no longer be available for selection in either a Project Phase Group or a Finance Phase Group.

If the phase is already included in a phase group, selecting *Infrastructure Costs Only* from this drop-down will automatically remove it from that phase group.

Phases identified as Infrastructure Phases continue to appear in the normal All Phases group when you are editing phases in the Time Scale and Phasing window. However, when you have closed down the Time Scale and Phasing window, Infrastructure Phases do not appear in the All Phases group. Instead they are grouped together under the All Infrastructure Phases group. This is to avoid the possibility of double-counting any costs.



Infrastructure Phases operate like any other normal phase and should be used for entering floor areas, site areas, unit numbers and costs. Do not enter revenues into an infrastructure costs, as they will be ignored when apportioning the costs to other phases.

Allocating Infrastructure Costs

The costs of infrastructure can be allocated to the development phases using several calculation methods. The calculation methods available for allocating infrastructure costs are outlined in the table below.

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Calculation Method	Description
% of Phase Cost	Multiplies a manually entered percentage against the total infrastructure costs in each period of the selected infrastructure phases. The resulting periodic infrastructure costs are placed in the cash flow of the development phase.
Proportion of Site Area	Takes the Total Site Area in the selected Infrastructure Phases and divides it into Site Area of a Development Phase to determine an allocation percentage. The percentage is then multiplied against the total infrastructure costs in each period of the selected infrastructure phases. The resulting periodic infrastructure costs are placed in the cash flow of the development phase.
Proportion of Gross Area	Takes the Total Gross Area in the selected Infrastructure Phases and divides it into the Total Gross Area in a Development Phase to determine an allocation percentage. The percentage is then multiplied against the total infrastructure costs in each period of the selected infrastructure phases. The resulting periodic infrastructure costs are placed in the cash flow of the development phase.
Proportion of Net Area	Takes the Total Net Area in the selected Infrastructure Phases and divides it into the Total Net Area in a Development Phase to determine an allocation percentage. The percentage is then multiplied against the total infrastructure costs in each period of the selected infrastructure phases. The resulting periodic infrastructure costs are placed in the cash flow of the development phase.
Proportion of Build Units	Takes the Total Number of Build Units in the selected Infrastructure Phases and divides it into Total Number of Build Units in a Development Phase to determine an allocation percentage. The percentage is then multiplied against the total infrastructure costs in each period of the selected infrastructure phases.

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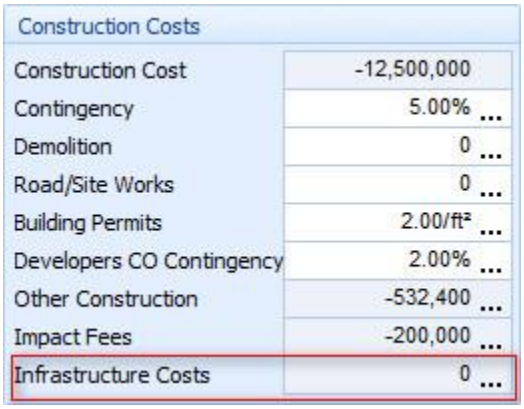
	The resulting periodic infrastructure costs are placed in the cash flow of the development phase.

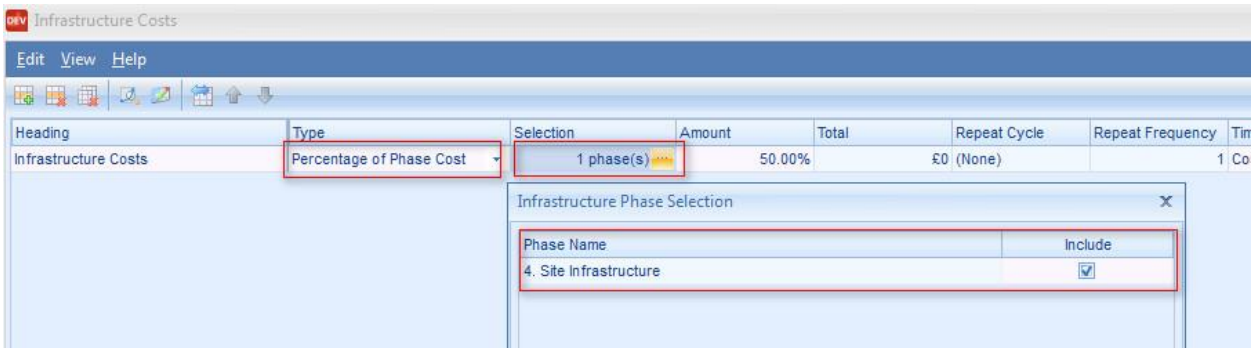
To create an allocation in a Development Phase, use the Infrastructure Costs editor on the Definition page. This field is enabled only when a development phase is selected from the Phase tab bar.



To open the editor, click the ellipsis button.

The editor enables you to choose the Type of allocation, which Infrastructure Phases you want allocate from, plus change any timing or enter notes.

If you either over allocate or under allocate the infrastructure costs, warnings will be automatically shown in the Data Selector. These warnings will indicate which infrastructure phases have not been 100% allocated, and which of the development phases has contributed to the over or under allocation.



To choose the Type of allocation, use **Type** field. There are five options available to calculate allocations. These are described in the table above.

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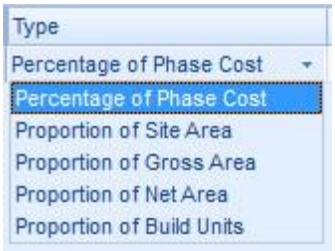

If you select the **Percentage of Phase Cost** type, the **Amount** field will be automatically enabled. You can then enter the percentage of infrastructure costs that you wish to allocate to this phase.

Next, choose which infrastructure phases you want to allocate from by clicking on the ellipsis in the **Selection** field. This action will show a list of infrastructure phases. To include a phase, check the Include check box against the phase name.

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Professional Fees

Professional Fees

This section describes the entry of all professional fees.

Professional fees are, by default, calculated as a percentage of construction costs defined in the Capitalized Rent and Sales areas. You can choose to include Contingency and/or Demolition and Road/Site Works in the calculations. To do this, check the relevant options on the Expenditure tab of the Assumptions for Calculation window.

See Also
Expenditure Tab

The fee amount will be distributed and the Construction stage defined in the time scale using the prevailing construction curve type.

Standard Professional Fees

There are six standard **Professional Fee** fields available, plus Other Professionals all of which allow you to enter an unlimited number of items.

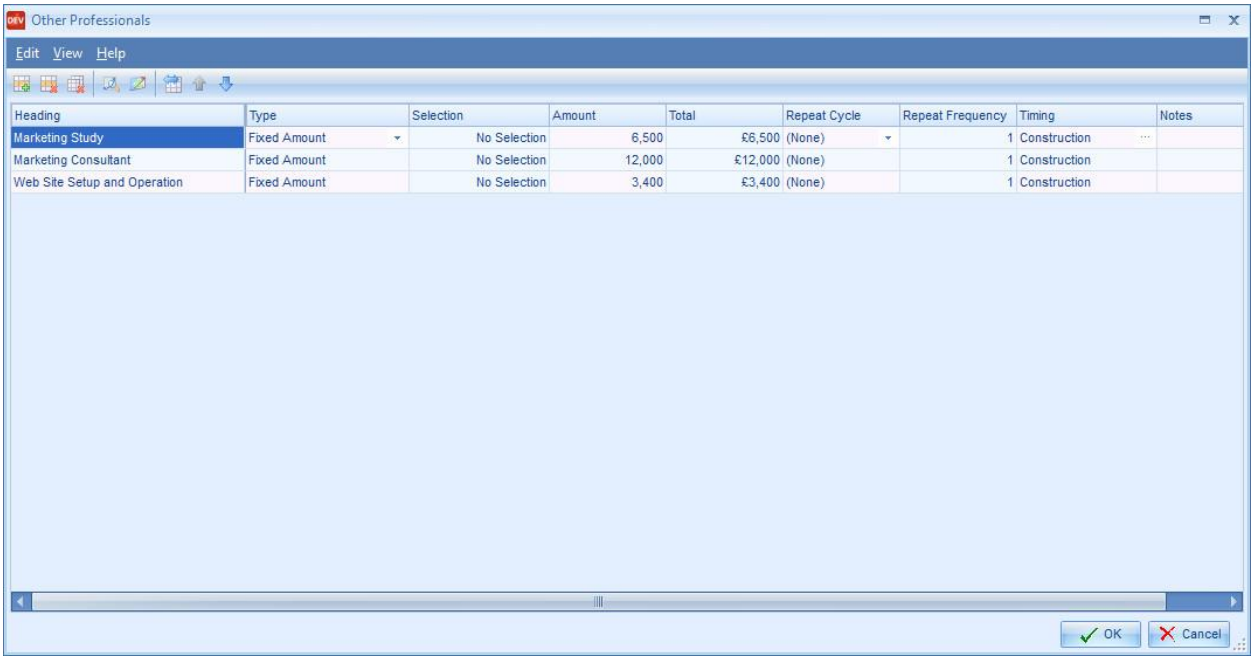
The standard fees are: Architect, Quantity Surveyor, Structural Engineer, Mechanical/Electrical Engineer, Project Manager and Construction Design Manager.

Click the ellipsis button to open up the Detail Editor on each fee.

See Also
Editing Data

Other Professionals

This schedule is used for entering any other construction-related fees and fixed costs. Click on the **Other Professionals** detail button to view the schedule.



See Also

Editing Data

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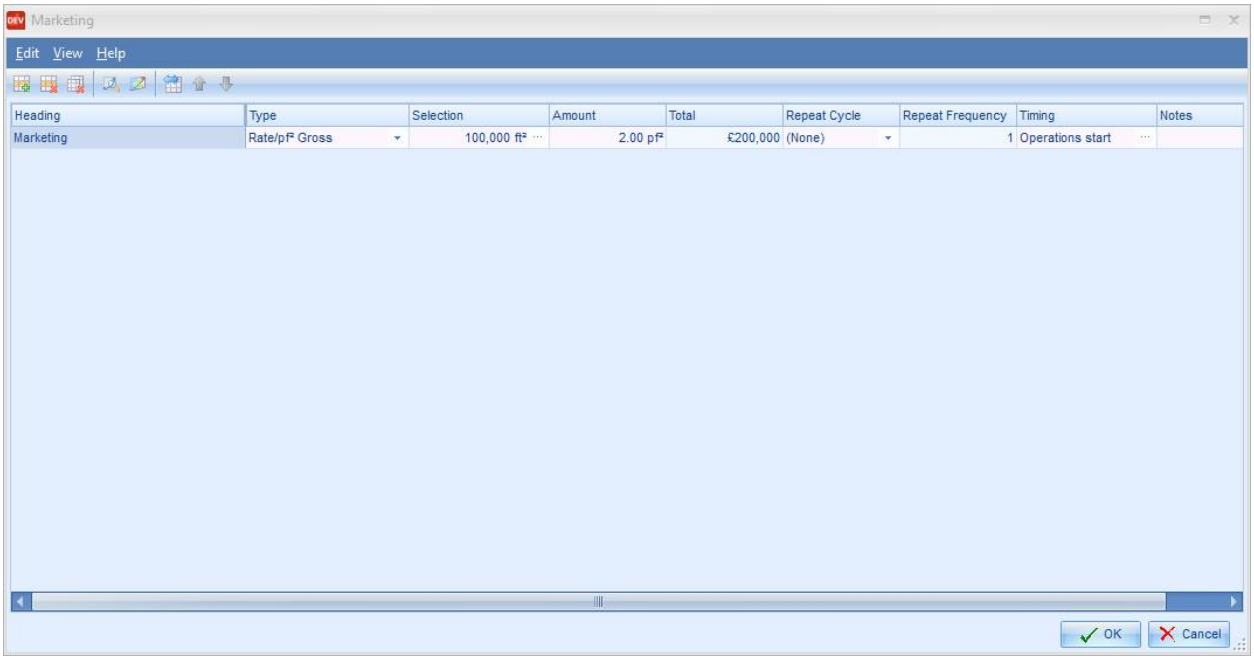
Marketing, Letting, & Disposal Costs

Marketing Costs

The Marketing cost can be placed as a single amount at the beginning of the letting stage defined in the time scale.

Click the ellipsis button to open up the Detail Editor for Marketing Costs.

Note: Please see Editing Data for further details of the common controls in this editor.



Letting Agent Fees

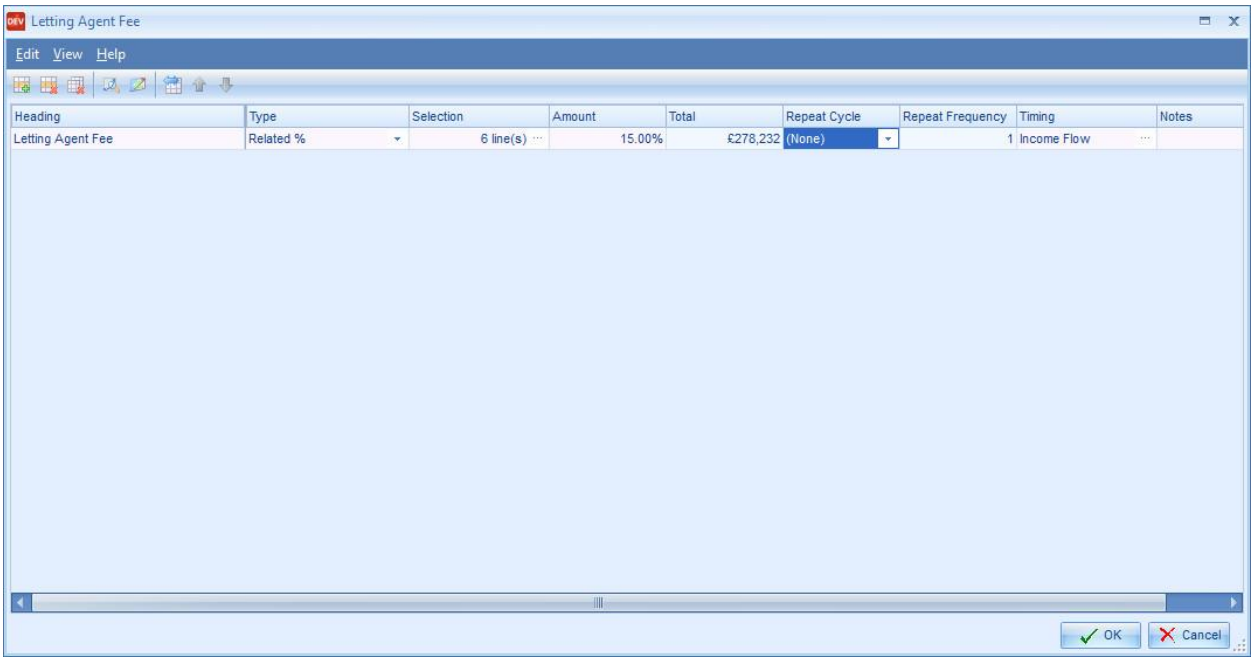
Enter the Letting Agent Fee and Legal Fees as a Rate on Lettings (% of Rent), fixed amount, rate per square foot/meter or as an amount per unit.

Click the ellipsis button to open up the Detail Editor for Letting Agent Fees or Letting Legal Fees.

Note: Please see Editing Data for further details of the common controls in this editor.

The Letting Agent Fee and Legal fees will normally be placed as single amounts at the start of the Sale stage defined in the time scale. If the Fees are entered as percentage values, their timing will follow that of the rental items to which they relate.

The Letting Fees are, by default, always related to all rental items defined in the Area Schedule. When you save the Area Schedule, ARGUS Developer checks the number of rental area definitions and updates the Letting Fees relation. You can select which rental items the fees apply to by clicking on the **Selection** control and checking the appropriate boxes in the Include column.



Purchaser's Costs

Purchaser's Costs, when entered as a related percentage, are normally related to Capitalized Rent. You can choose to include non-capitalized sales in the calculation. To do this, select the **Assumptions** command in the Calculation Assumptions group on the Home tab, then check the **Apply to Direct Sales** option under the Expenditure Tab.

Purchaser's Costs will normally be placed as a single amount at the start of the sale stage defined in the time scale. If the cost is entered as a percentage value, its timing will follow that of the items to which it is related.

Purchaser's Costs defined as a related percentage are, by default, related to all items defined in the Capitalized Rent form. When you save and exit from the Capitalized Rent form, ARGUS Developer checks the number of rental area definitions and updates the purchaser's costs relation.

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Sales Fees

Enter the Sales Agent and Legal fees as a percentage of total Capitalized Rent, fixed amount, rate per square foot/meter or as an amount per unit.

Click onto the ellipsis button to open up the Detail Editor for Sales Agent Fee or Sales Legal Fee.

Note: Please see Editing Data for further details of the common controls in this editor.

The sales fees will normally be placed as a single amount at the start of the sale stage defined in the time scale. If the fees are entered as percentage values, their timing will follow that of the items to which they are related.

The sales Fees are always related to all items defined in the Capitalized Rent and Sales form. When you save the area schedules, ARGUS Developer checks the number of rental and sales area definitions, and updates the Sales Fees relation.

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Additional Data

Additional Data

This section describes the entry of any additional revenues, costs, and fees that are not included in the standard fields on the Definition screen. They can occur at any time during the project and are not tied to any stage of development.

See Also

Arrangement Fee
Development Management Fee
Rent Review Fee
Additional Revenue
Additional Costs
Additional Related
Rent Additions / Costs
Sales Additions / Costs
Developer's Profit

Arrangement Fee

The arrangement fee is normally entered as a fixed amount. This will be placed as a single amount at the beginning of the purchase stage defined in the time scale.

Arrangement fees can also be entered as related percentage fees, rate per floor area/unit, and so on.

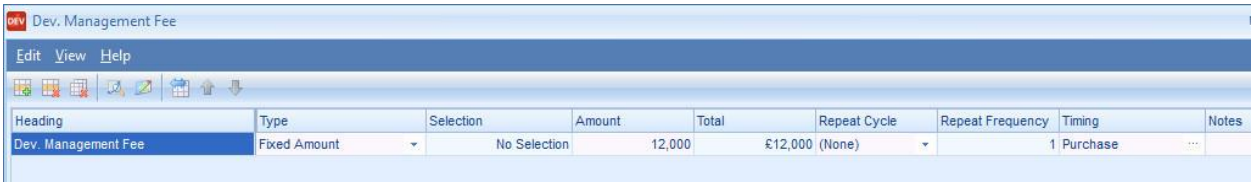
Click onto the ellipsis button to open the Detail Editor for Arrangement Fee:

Please see Editing Data for further details of the common controls in this editor.

Development Management Fee

This fee is typically entered as a percentage related fee. You must decide upon which costs the fee will be calculated.

To do this, click on the ellipsis button to open the Detail Editor for Development Management Fee:



To enter a percentage of Development Costs

1. Click on the **Selection** ellipsis button
2. Select the development costs the fee is based on
3. The timing and distribution of the fee will follow that of the source development costs

The Development Management Fee can also be defined on other bases including as a fixed amount, rate per floor area/unit and so on.

Please see Editing Data for further details of the common controls in this editor.

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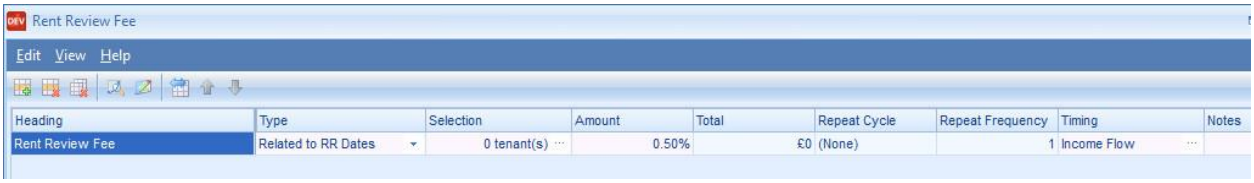
Rent Review Fees

Rent Review fees can be entered as a percentage when the Tenant's Rental Income Stream mode is active. If the property is subject to rent reviews during the Income Flow stage, the program will calculate fees based on the net rent achieved (inclusive of rental growth). As a related cost, its timing will follow that of the items to which it is related.



Rent review fees can also be entered as a fixed amount, rate per square foot or meter, an amount per unit, or other options - and will normally be placed as a single amount at the start of the Income Flow stage defined in the time scale.

To change the way the fee is calculated, its timing, or its distribution, click the ellipsis button in the **Rent Review Fee** field to open the detailed definition screen and select the Timing control.

See Also

Editing Data

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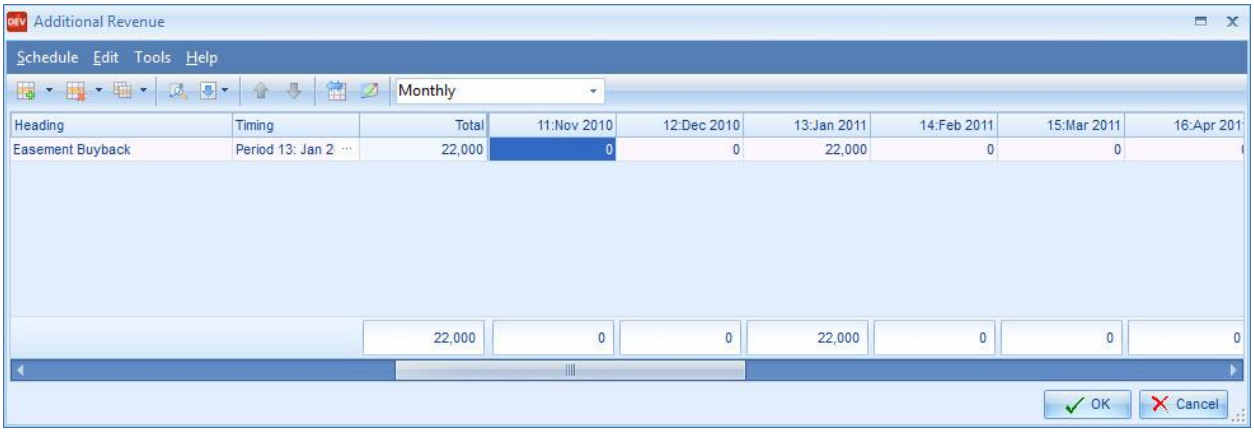
Additional Revenue

Any miscellaneous income streams can be entered into the Additional Revenue schedule.

Click on the **Additional Revenue** ellipsis button to view the schedule. The schedule is laid out as a mini-cash flow for each revenue item, with each period able to accept a fixed amount. Use the Heading column to enter a descriptive name and press the ENTER key to move to the next column.

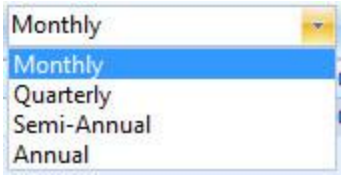


See Also

Editing Data

Data View Cycle

The data columns can be shown either in monthly, or other view cycles by changing the **Data View Cycle** drop-down as shown below.



To use a revenue to reduce the cost balance

If you have revenues that are used to reduce the cost balance, use the **Cost Type** drop down. These types of revenues will appear in the Cost section of the summary report.

1. Click **Tools >> Show Financial** Data
2. Drop down the **Cost Type** selector
3. Select *Revenue* (Reducing Cost)

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Additional Costs

Any miscellaneous costs may be entered using the Additional Costs schedule. The use of this schedule is as described in the Additional Revenue section above.

To deduct a cost from the revenue balance

If you have a cost that is used to reduce the revenue balance, use the **Cost Type** drop-down. These types of costs will appear in the Revenue section of the summary report.

1. Click **Tools >> Show Financial** Data
2. Drop down the **Cost Type** selector
3. Select *Cost (Reducing Revenue)*

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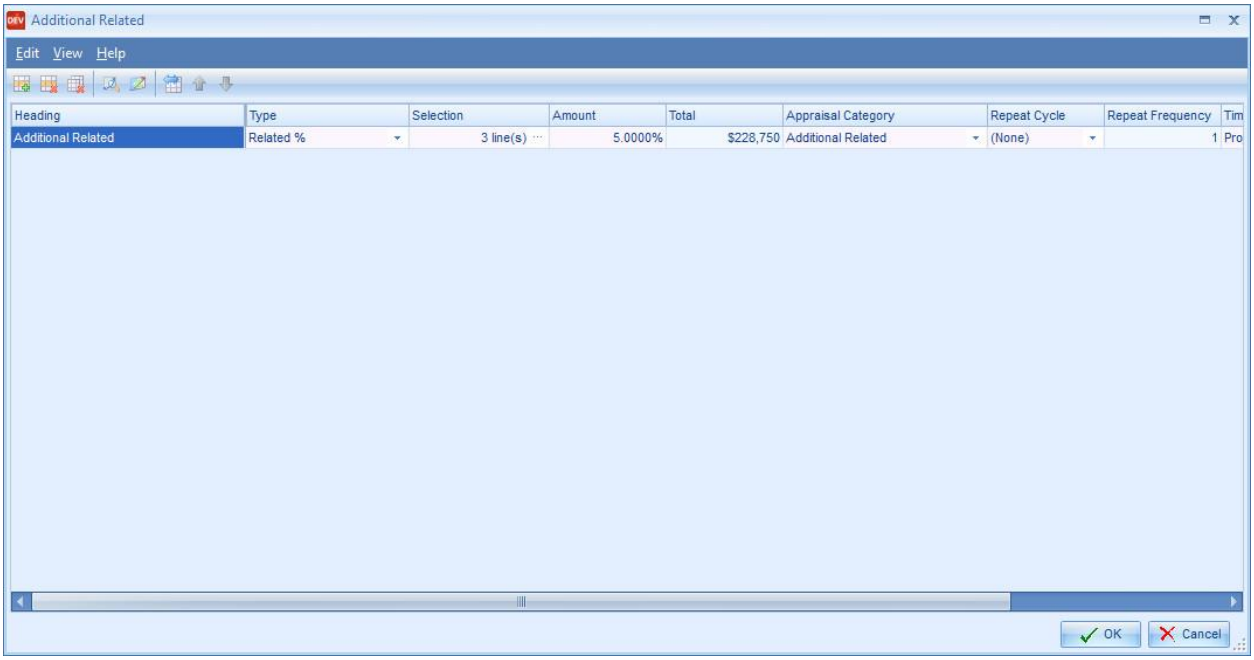
Additional Related

Any miscellaneous related items may be entered using this schedule. It is possible to define second sets of Sales Fees, Grants and Geared Ground Leases on this schedule.



See Also

Editing Data

To create a new related cost or revenue

1. Click the **Add New Item** command on the tool bar
2. Type the name into the Heading cell
3. Select the relation **Type** from the drop-down selector
4. Select the source items to which this one is related by clicking the **Selection** ellipsis
5. Enter the relation rate into the **Amount** field
6. Select the type of cost or receipt. This field will be updated automatically after the Category has been chosen, but you may amend it at any time.

To make the cost or revenue repeat over time

1. Select a Repeat Cycle
2. For Monthly, Quarterly, Semi-Annual and Annual, the Repeat Frequency will be entered automatically
3. For Custom, you enter the Repeat Frequency

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To customize the timing or distribution

1. Select the **Timing** ellipsis button to override any timing or distribution

To choose the appraisal report location

1. Select the Appraisal Category. The Category determines where the cost/revenue will appear on the Appraisal Summary.

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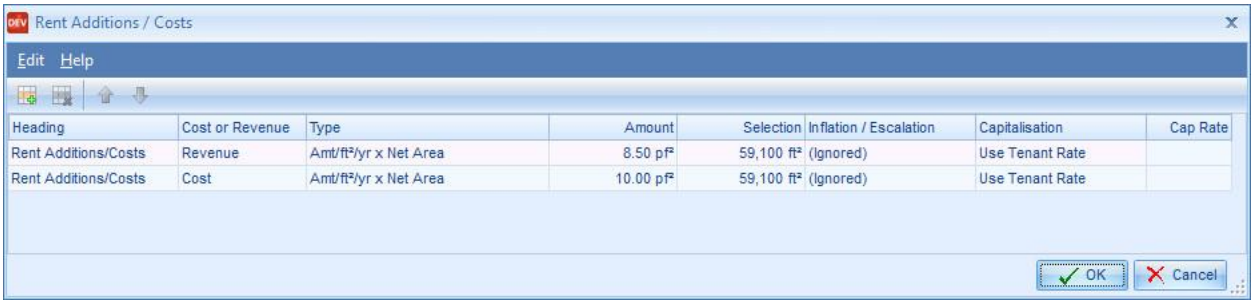
Rent Additions/Costs

Recoverable and non-recoverable rent costs can be entered using the Rent Additions/Cost schedule.



See Also

Editing Data

An unlimited number of rent costs may be entered into this schedule. If the cost is capitalized, it will either be deducted from or added to the investment valuation.

To	Do this
Add/Delete new rows.	Use the **Plus** and **Minus** buttons.
Change Cost or Revenue.	Click in box and select from drop-down.
Change Type.	Click in field and choose from one of several options: 1. Fixed Amount/Unit/Year; 2. Fixed Amount/Area/Year; 3. Amt/m^2/yr x Net Area (or, if Imperial, Amt/ft^2/yr x Net Area); 4. Amt/m^2/yr x Gross Area (or, if Imperial, Amt/ft^2/yr x Gross Area); 5. Amt/m^2/yr x Alternate Area (or, if Imperial, Amt/ft^2/yr x Alternate Area). 6. % of Base Rent; 7. % of Gross Rent (this includes Base Rent, plus all other Rent Addition items related to this area record, except for other % of Gross Rent items).

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Enter Amount.	Type in the amount for the cost or revenue into the **Amount** field.
Apply to different area/units from the area schedule.	Click into Selection and select the tenant/unit(s) to which the rent addition/cost applies.
Apply growth to rows.	Click into the **Growth** field and select from menu of growth sets (previously defined).
Apply private or tenant capitalization rate.	Click into **Capitalization** field and choose either the *Private Rate* or *Tenant Rate* option. If choosing *Private*, enter rate to the right of box. If you do not wish to capitalize the rent addition/cost, select *No Capitalization*.

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Sales Additions/Costs

Additional sales costs and revenues can be entered using the Sales Additions / Costs schedule.

See Also

Editing Data

An unlimited number of rows of data may be entered into this schedule. The value, will either be deducted from or added to the sales valuation. The use of this schedule is as described in the Rent Additions/Costs section above.

To	Do this
Add/Delete new rows.	Use the **Plus** and **Minus** buttons.
Change Cost or Revenue.	Click in box and select from drop-down.
Change Type.	Click in field and choose from one of various options: • Fixed Amount/Unit; • Amt x Net Area; • Amt x Gross Area; • Amt x Alternate Area.
Enter Amount.	Type in the amount for the cost or revenue into the **Amount** field.
Apply to different area/units from the area schedule.	Click into the **Selection** field and apply to a unit (or units).

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Apply growth to rows.	Click into the **Growth** field and select from menu of growth sets (previously defined).

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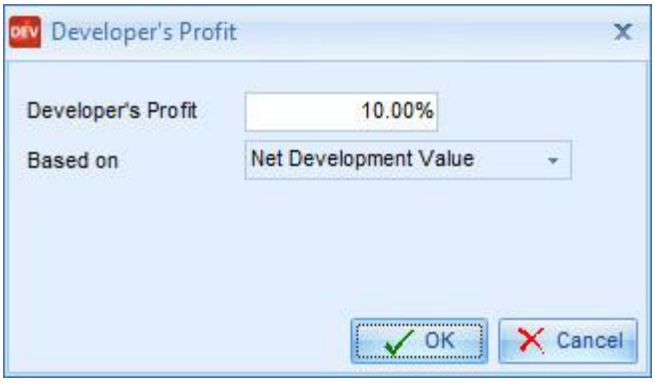
Developer's Profit

You can include an allowance for Developer's Profit, as a cost to the project.

Select **Developer's Profit** from the Definition menu. This opens the Developer's Profit window:



Enter the developer's profit as a percentage of the net development value, then click the **OK** button.

An additional row will be added to the cash flow displaying this item.

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Cash Flow

Cash Flow

The Cash Flow is a flexible analysis tool that records all costs and receipts entered into the Definition section of the program. Financial calculations are carried out automatically when any value changes.

The ability to define precise cost distribution as well as relationships between various items of data offers a powerful, flexible tool that deals with almost every type of single or multi-phased scheme.

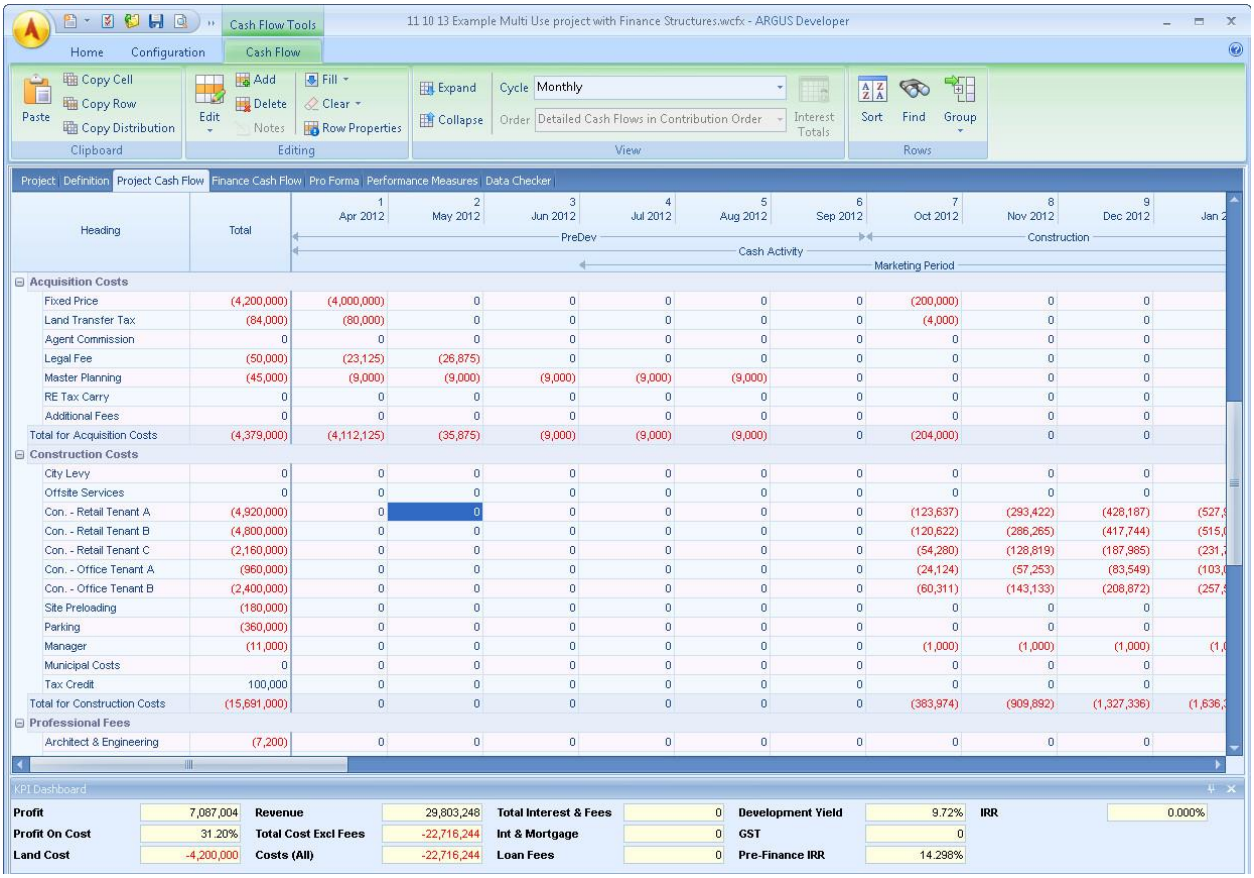
A development project is normally evaluated by the revenue return on expenditure. The simple mathematical surplus (or deficit) is a general guide only that the project is worth pursuing. The true performance of the money and its comparison with alternative forms of investment is more apparent after discounting the entire project to equate the costs and revenues to present day figures.

The Cash Flow undertakes these calculations in real-time by producing the discount (DCF) rate at which the net present value is zero, or as near to zero as can be calculated.

What's on the Cash Flow Screen?

The cash flow is comprised of several main sections:

1. The tool bar that allows you to change the appearance and cycle of the cash flow.
2. The properties of each row, such as the Heading and Interest Set.
3. The cash flow grid containing the project costs and receipts.
4. The Interest/Inflation and Totals grid.
5. The status display on the bottom of the window, which shows information about the currently selected cell.


Cash Flow Tools
11 10 13 Example Multi Use project with Finance Structures.wcfx - ARGUS Developer
Home
Configuration
Cash Flow
Paste
Copy Cell
Copy Row
Copy Distribution
Clipboard
Edit
Add
Delete
Notes
Fill
Clear
Row Properties
Editing
Expand
Collapse
Cycle
Monthly
Order
Detailed Cash Flows in Contribution Order
Interest Totals
View
Sort
Find
Group
Rows
Project
Definition
Project Cash Flow
Finance Cash Flow
Pro Forma
Performance Measures
Data Checker
Heading
Total
1 Apr 2012
2 May 2012
3 Jun 2012
4 Jul 2012
5 Aug 2012
6 Sep 2012
7 Oct 2012
8 Nov 2012
9 Dec 2012
PreDev
Construction
Cash Activity
Marketing Period
Acquisition Costs
Fixed Price (4,200,000) (4,000,000) 0 0 0 0 0 (200,000) 0 0
Land Transfer Tax (84,000) (80,000) 0 0 0 0 0 (4,000) 0 0
Agent Commission 0 0 0 0 0 0 0 0 0 0
Legal Fee (50,000) (23,125) (26,875) 0 0 0 0 0 0 0
Master Planning (45,000) (9,000) (9,000) (9,000) (9,000) (9,000) 0 0 0 0
RE Tax Carry 0 0 0 0 0 0 0 0 0 0
Additional Fees 0 0 0 0 0 0 0 0 0 0
Total for Acquisition Costs (4,379,000) (4,112,125) (35,875) (9,000) (9,000) (9,000) 0 (204,000) 0 0
Construction Costs
City Levy 0 0 0 0 0 0 0 0 0 0
Offsite Services 0 0 0 0 0 0 0 0 0 0
Con. - Retail Tenant A (4,920,000) 0 0 0 0 0 0 (123,637) (293,422) (428,187)
Con. - Retail Tenant B (4,800,000) 0 0 0 0 0 0 (120,622) (286,265) (417,744)
Con. - Retail Tenant C (2,160,000) 0 0 0 0 0 0 (54,280) (128,819) (187,985)
Con. - Office Tenant A (960,000) 0 0 0 0 0 0 (24,124) (57,253) (83,549)
Con. - Office Tenant B (2,400,000) 0 0 0 0 0 0 (60,311) (143,133) (208,872)
Site Preloading (180,000) 0 0 0 0 0 0 0 0 0
Parking (360,000) 0 0 0 0 0 0 0 0 0
Manager (11,000) 0 0 0 0 0 0 (1,000) (1,000) (1,000)
Municipal Costs 0 0 0 0 0 0 0 0 0 0
Tax Credit 100,000 0 0 0 0 0 0 0 0 0
Total for Construction Costs (15,691,000) 0 0 0 0 0 0 (383,974) (909,892) (1,327,336)
Professional Fees
Architect & Engineering (7,200) 0 0 0 0 0 0 0 0 0
KPI Dashboard
Profit 7,087,004
Profit On Cost 31.20%
Land Cost -4,200,000
Revenue 29,803,248
Total Cost Excl Fees -22,716,244
Costs (All) -22,716,244
Total Interest & Fees 0
Int & Mortgage 0
Loan Fees 0
Development Yield 9.72%
GST 0
Pre-Finance IRR 14.298%
IRR 0.000%

Cash Flow Grid

The cash flow is a grid of rows and columns. Each cell is the intersection of a row and column and holds periodic costs and receipts.

When starting ARGUS Developer for the first time, you should find that all costs are displayed in red and all receipts in blue. You can change the color of the cell values by clicking on the **Cash Flow Options** button or by choosing **Options** from the Tools menu.

Generally, you first select the cell you want to work with, and then you enter data or choose a command. A selected cell appears highlighted on the screen. The active cell is the cell into which data is entered when you start typing. Only one cell is active at a time.

To change the active cell

Move the mouse pointer to a cell and click into it, or use the cursor keys.

To scroll through the grid

1. Move the mouse pointer to the down arrow in the vertical scroll bar on the right edge of the grid, and then click. The grid moves down one row.
2. Click the scroll bar area below the scroll box, in the vertical scroll bar on the right edge of the grid. The grid scrolls down one screen.
3. Move the mouse pointer into the scroll box. Hold the mouse button down, move the pointer back to the top of the vertical scroll bar, and then release the mouse button. This is called dragging. The grid scrolls back up to the first row.

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Status Bar

The status display shows information about the currently selected cell. It is located on the bottom of the Cash Flow window (outlined in red here for illustrative purposes):

The following list shows the types of information displayed here (from left to right):

- How many of the phases are included/not included in the currently-displayed phase grouping
- The current phase name; the currently selected cell's location in the Cash Flow grid
- The type of value the cell contains
- The status of the currently selected cell (whether it has "Normal" status or otherwise)
- An ID number which uniquely identifies the currently selected cell. If you need to do so, you can quote this number when making a call to technical support
- An average, count or sum of a selected range of cells in the cash flow. This status information replaces the ID number when a range of cells is selected

Status bar options

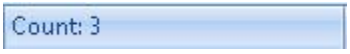
In addition to the useful information described above, the status bar can also display an average, count or sum total of a range of cells.

To display an average

1. Select multiple cells in the grid by clicking and dragging to "paint" a range of cells.
2. The ID number (on the far right of the status display) will change to display a number.
3. Right-click on this number and select the *Average* menu option.
4. The number will change to show the average of the values in the cells you selected:

To display a cell count

1. Select multiple cells in the grid by clicking and dragging to "paint" a range of cells.
2. The ID number (on the far right of the status display) will change to display a number.
3. Right-click on this number and select the *Count* menu option.
4. The number will change to show the number of cells you selected:



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To display a sum total

1. Select multiple cells in the grid by clicking and dragging to “paint” a range of cells.
2. The ID number (on the far right of the status display) will change to display a number.
3. Right-click on this number and select the **Sum** menu option.
4. The number will change to show the total of the values in the cells you selected:

Other settings

When using the Average, Count and Sum features, there are also other menu options available when you right-click on the ID number:

- **Include Hidden Rows:** If you check this option, any hidden rows that are within the currently-selected range of cells will be included in the average, count or sum calculation.
- **Include Zero Rows:** If you check this option, any zero rows that are within the currently-selected range of cells will be included in the average, count or sum calculation.
- **Include Heading Rows:** If you check this option, any heading rows that are within the currently-selected range of cells will be included in the average, count or sum calculation.

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Cash Flow Context Tab

When you click into the Project Cash Flow or the Finance Cash Flow for the first time, the ribbon bar shows the Cash Flow Tools Context tab, highlighted in green. The Cash Flow Tools context tab contains all the commands you will need when you are working with cash flows.

When you click into another part of the program, the Cash Flow Tools context tab will be hidden. The next time you click into the cash flows, the context tab will be shown, but you will need to click it to show the commands.

Cash Flow Commands

You can manipulate the information shown in the cash flow by adding and deleting rows, and changing links to other rows. The cash flow commands are accessed from the Cash Flow Tools context tab. Alternatively, you can right-click with the mouse to access the more frequently used commands.

Copy and Paste

You can copy and paste individual cells or entire rows of data within the cash flow. In addition, you can copy the distribution curve from one row to another. Please note that, whilst you can copy any row in the cash flow, you cannot paste to rows that are related to other rows.

To copy a cell

1. Select the cell that you want to copy
2. Choose the **Copy Cell** command from the Clipboard group or press CTRL-C on the keyboard.
3. Select the cell or range of cells that you want to paste into.
4. Choose the **Paste** command from the Clipboard group or press CTRL-V on the keyboard. If you select any area-based cells when pasting, the associated area record will be updated.

To copy a row

1. Move to the row that you want to copy.
2. Choose the **Copy Row** command from the Clipboard group.
3. Move to the row that you want to paste into.
4. Choose the **Paste** command from the Clipboard group or press CTRL-V on the keyboard.

To copy a row's distribution curve

1. Move to the row that you want to copy.
2. Choose the Copy Row Distribution % from the Clipboard group.
3. Move to the row that you want to paste into.
4. Choose the **Paste** command from the Clipboard group or press CTRL-V on the keyboard.

   The data values on the pasted row will now follow those on the copied row.

Cut and Paste

Cell data valued can be cut from one period and pasted into another when the cells are on the same row.

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To cut a cell

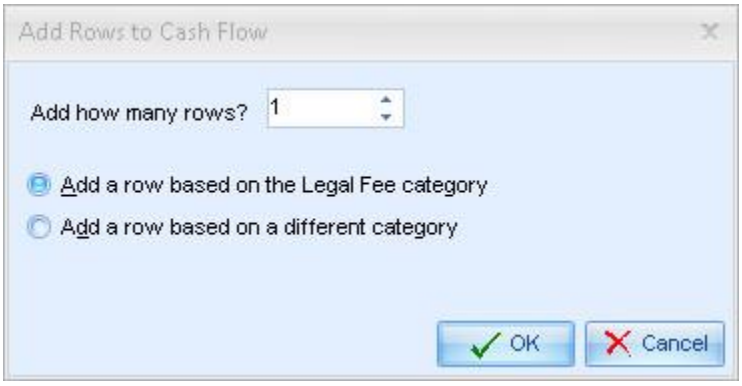
1. Move to the cell that you want to cut.
2. Choose the **Cut Cell** command from the Clipboard group.
3. Move to the cell that you want to paste into.
4. Choose the **Paste** command from the Clipboard group or press CTRL-V on the keyboard.

Add Row

You can add new rows to the cash flow when the Definition screen does not show a pre-defined field type for either a cost or revenue, or when you want to create a cash flow from scratch.

To add new rows to the cash flow

1. Select the **Add** command from the Editing group.
2. Enter the number of rows you want to add by typing a number or by using the spinner arrows.
3. Choose either the default category or click the **Choose another category radio** button to choose your cost or receipt type.
4. Click on the **Add** button.



To code newly added rows

1. Select a category from the Category Browser list (see picture below). It is important that you code each new row, as it is the code that determines where the row will be placed in the cash flow and how the row's value will be treated in the calculations.
2. Make any selections from the Options section (see below for further explanation of the options listed).
3. Click on **Accept Category**. After each new line is added, a progress label is updated on the screen.

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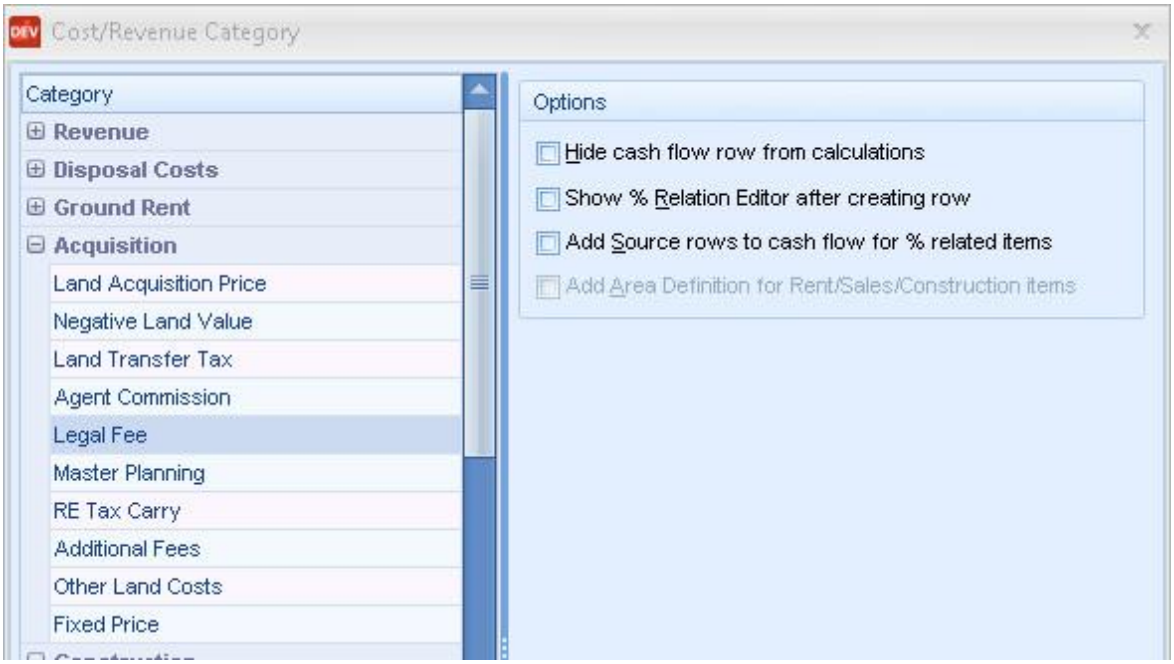

Options

There are several options that determine what happens to a row after it is created:

Hide Cash Flow Row from Calculations: Select this check box to hide the row from calculations. This box will be selected automatically if you code a line as any of the following: Annual Rent, Ground Rent, Rent History or Existing Income.

Show % Relation editor: If you want to relate the row to another, select the **Show Relation** option. When you click on **Accept Category**, the Relate form is displayed and you can relate the row to any other rows.

Add Source rows: If you create a row that is normally dependent on other items being present (for example, Architect fee which is related to Construction among other things), you should select the **Create Source** option. ARGUS Developer will automatically generate rows that the new fee depends on.

Add Area definition: If you are creating a Rent, Sales or Construction row, you may want ARGUS Developer to generate an Area definition record. In this case, the new row is linked to an area definition.

If you are creating a Construction row, you will be asked to specify whether the construction data is linked to a Rent or Sales definition.

Edit Source

When you want to edit the detail behind the cash flow data, select the **Source Data** command from the **Edit** drop-down list in the Editing group. This opens the Detail Editor for the selected cash flow row which can then be edited or amended.

Please see Editing Data for further details of the common controls in this editor.

Delete Row

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You can delete a row from the cash flow to permanently remove it from the project. When you delete a row, it disappears from the Definition screen and the following rows shift up to fill the space.

To delete a row from the cash flow

1. If you want to remove several rows in one go, tag the rows (see the section on Tag below).
2. Select the **Delete** command from the Editing group or press CTRL-DELETE to delete the row.
3. Confirm the deletion. Rows are deleted from the cursor position downwards and the cash flow is recalculated.

If you delete a row that was created from an area definition, the area definition will be deleted. This means that if you delete a Capitalized Rent row, its MRV and construction rows will be deleted too.

If you delete a row that has related fees attached to it, then the related fee is converted automatically into a fixed amount. You will not lose the information in the related fee cells.

Heading

The standard heading of any row can be changed from within the cash flow to update area records and reports.

To change the heading

1. Click with the mouse into the Heading cell.
2. Type a new heading over the existing entry and press the **OK** button.

Lock/Unlock

Rows may be locked in the cash flow to prevent manual values being entered into the data cells. The Locked status will be toggled on or off by this command. Related rows are locked automatically when they are created.

To lock or unlock a row

1. Move to the row that you want to lock.
2. Select the **Lock** command from the **Edit** drop-down list in the Editing group or press the L key on the keyboard.

Hidden Rows

Rows may be marked as hidden so they are not included in the row/column totals, neither will they attract any interest.

Hidden rows can still be used as the basis for relationships, and it is possible to hide one or more rows in the worksheet and relate a normal fee line to it. In this case, only the figures in the related rows are used by the calculations.

When printing cash flow reports, you can choose whether or not to print hidden lines.

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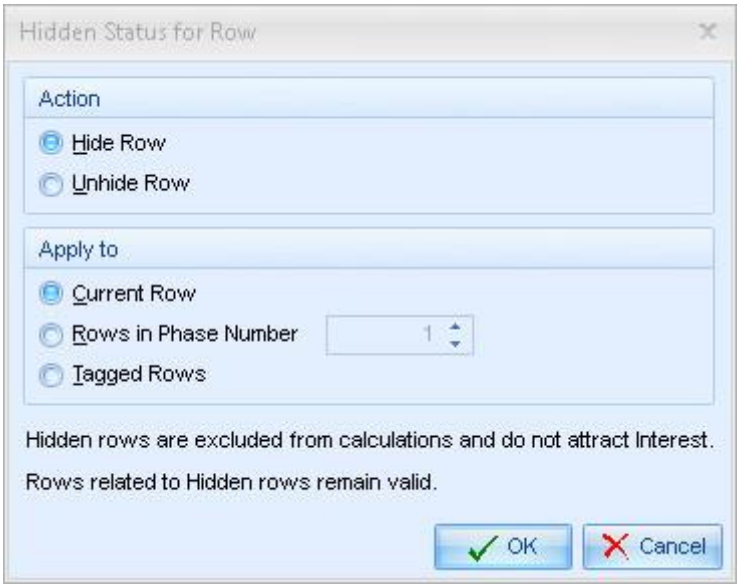
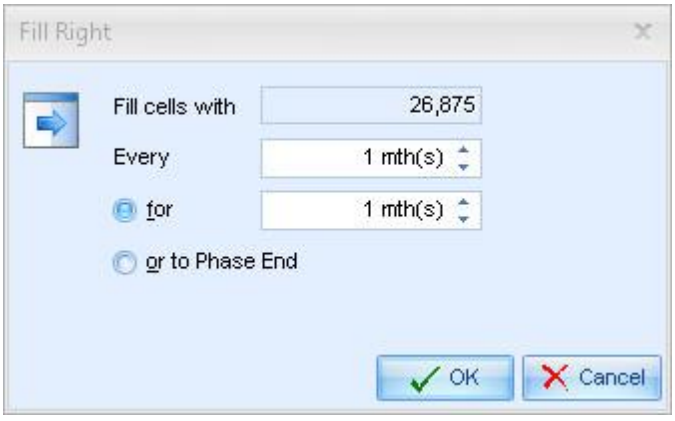


To hide a row

1. Move to the row that you want to hide.
2. Select **Hide** command from the **Edit** drop-down list in the Editing group or press the O key on the keyboard.
3. If the row is currently hidden, the Hidden Status window will have the **Unhide** option selected. If the row is currently un-hidden, the Hidden Status window will have the **Hide** option selected.

Fill

You can quickly copy a single cell value backwards and forwards through any non-related row using a variety of standard distribution cycles: monthly, quarterly and so on. If you repeat a cell on an area-based row, the associated area record will be updated.



To fill a range of cells to the right

1. Move to the cell whose value you want to use to fill other cells.

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2. Select the **Fill Right** command from in the Editing group or right-click to use the popup menu.
3. Choose the repeat cycle in the Every box, or leave it at 1 for every period in the range.
4. Choose the number of cells in the range from the For box, or select to Phase End.

To fill a range of cells to the left

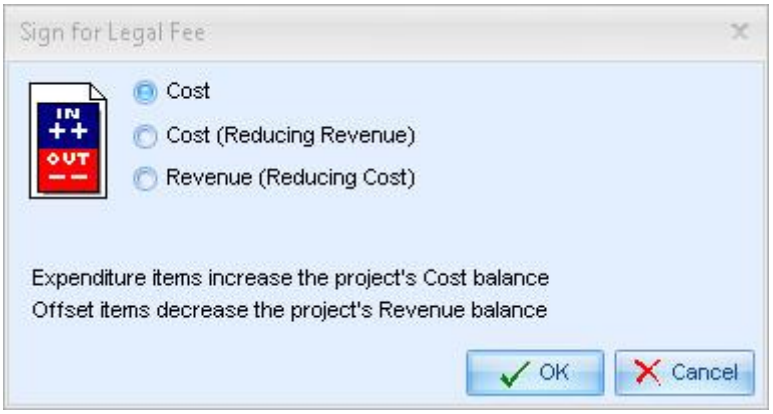
1. Move to the cell whose value you want to use to fill other cells.
2. Select the **Fill Left** command from in the Editing group or right-click to use the popup menu.
3. Choose the repeat cycle in the Every box, or leave it at 1 for every period in the range.
4. Choose the number of cells in the range from the For box, or select to Phase Start.

To fill all cells to the left and right

1. Move to the cell whose value you want to use to fill other cells.
2. Select the **Fill All** command from in the Editing group or right-click to use the popup menu.

Sign

Every row in the Cash Flow carries a sign that indicates whether it is a cost or revenue. Two additional signs specify whether a cost row will be used to offset/reduce revenues or whether a revenue row will be used to offset costs.



To change the sign for a row

1. Move to the row for which you wish to change the sign.
2. Select the **Sign** command from **Edit** drop-down list in the Editing group.
3. Choose a sign by clicking one of the **Sign** radio buttons.

Interest and Inflation

Interest, inflation and growth sets can be selected and applied to a single or selection of rows in the Cash Flow. Interest sets make the application of interest rates to individual

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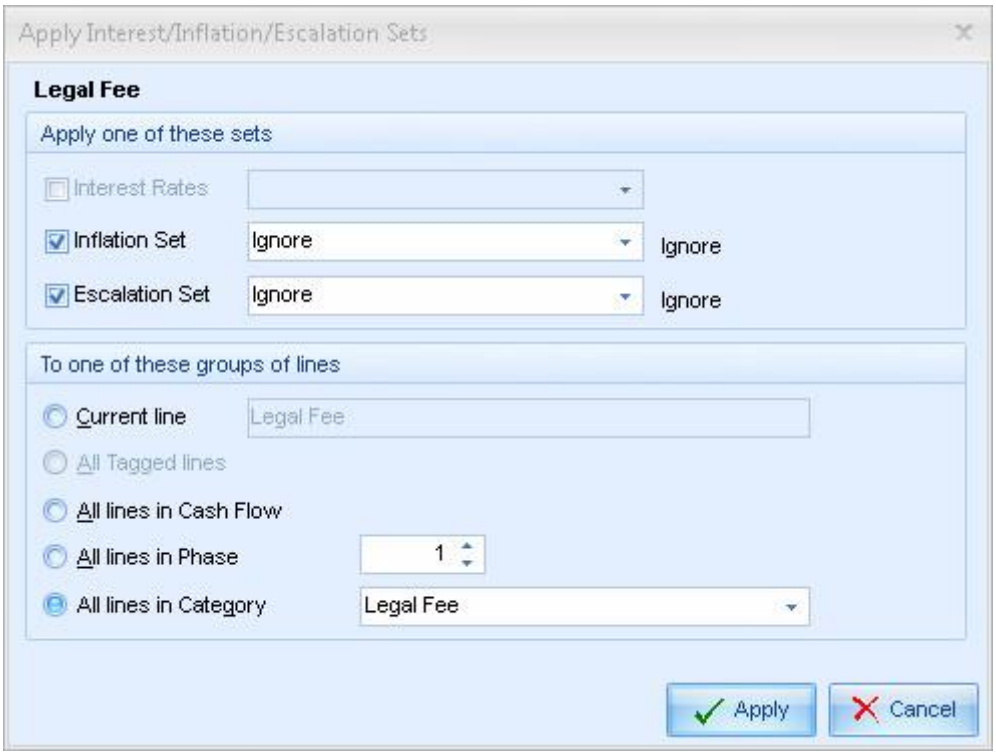
rows, or groups of rows. When an interest rate is changed within a set, any row to which the set is attached automatically has its interest rates updated.

Note the Interest command is applicable only when Basic Finance (Interest Sets) is the selected finance mode.

To apply interest/inflation/growth sets

1. Select the **Interest** or **Inflation** commands from the Edit drop-down in the Editing group.
2. Select the interest, inflation and/or growth set(s) to be applied in the drop-down lists. As you change set numbers the pre-defined rates are shown to the right of the field.
3. Choose the rows that the selected sets are to be applied to. Sets can be applied to the current row, to tagged rows, or to all lines in the cash flow, phase or category by selecting the required option.
4. Click **Apply** to apply your settings.



Clear Data Cells

Data cells may be cleared from the cash flow using the **Clear** command. When a cell is cleared, its value is set to zero.

To clear either a cell or row

1. Move to the cell or row.
2. Select the **Clear Cell** or **Clear Row** command from the Editing group.

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To clear all rows in the cash flow

1. Select the **Clear All Rows** command from the Editing group.

To zero tagged rows

1. Tag the range of rows (see the section on Tag below).
2. Select the **Clear Tagged Rows** command from the Editing group.

> **Note:** Any rows that are attached to an area definition will be updated automatically.

Tagging Rows

You can tag a block of lines prior to using the **Hide** or **Clear** commands so that the command works on the whole block in one go. The tagged blocks are shown here outlined in green for illustrative purposes:

Heading	Category	Tagged	Hidden	Locked	Phase	Related	Sign	Interest	Inflation	GST	Notes	Total	1 Apr 2012	2 May 2012	3 Jun 2012	Jul
													PreDev			
													Cash Acti			
Acquisition Costs																
Fixed Price	86	✔			1		--	✔				(4,200,000)	(4,000,000)	0	0	
Land Transfer Tax	14	✔		✔	1	✔	--	✔				(84,000)	(80,000)	0	0	
Agent Commission	16				1	✔	--	✔				0	0	0	0	
Legal Fee	17				1		--	✔				(900,000)	(25,000)	(25,000)	(25,000)	(25
Master Planning	20	✔			1		--	✔				(45,000)	(9,000)	(9,000)	(9,000)	(9
RE Tax Carry	21	✔			1		--	✔				0	0	0	0	
Additional Fees	22	✔			1		--	✔				0	0	0	0	
Total for Acquisition Costs												(5,229,000)	(4,114,000)	(34,000)	(34,000)	(34

To tag a contiguous range

1. Before tagging rows, the row properties columns must be visible. To display the Row Properties, right-click in the cash flow grid, select *Show > Row Properties.*
2. Click into the Tagged cell in the Row Properties section. The Tagged indicator will change to display a tick, and the tagged line will now be shown with a differently-colored background (the color that is displayed here depends on your color settings).
3. Press and hold down the SHIFT key.
4. Keep the Shift key pressed and click the Tagged cell at the end of the range.

To tag a non-contiguous range

1. Before tagging rows, the row properties columns must be visible. To display the Row Properties, right-click in the cash flow grid, select *Show > Row Properties*.
2. Click into the Tagged cell in the Row Properties section. The Tagged indicator will change to display a tick, and the tagged line will now be shown with a differently-colored background (the color that is displayed here depends on your color settings).

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3. Press and hold down the CTRL key as you tag other rows.

To remove the tags from all tagged lines

1. Click anywhere in the Cash Flow grid.

Export Cash Flow to Excel

The cash flow may be exported to MS Excel using the **Export Full Cash Flow** command from the popup menu. The full cash flow and additional financial data will be exported to a pre-defined template in Excel. When the export is complete, Excel will be opened on your desktop so that you may review the file.

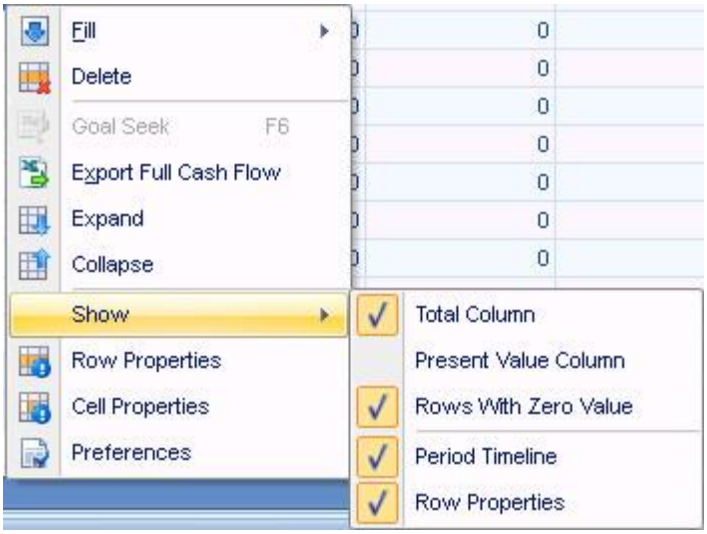
See Also

Exporting the Cash Flow to Excel

Row Properties

The row properties show you additional information about each row in the cash flow, in several columns immediately after the Row Heading column. You can hide these to show more data in the cash flow grid.

To display the Row Properties, right-click in the cash flow grid, select *Show > Row Properties*.



The Row Properties are displayed as a group of columns between the Heading and the data columns.

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Project | Definition | Project Cash Flow | Finance Cash Flow | Pro Forma | Performance Measures | Data Checker

Heading	Category	Tagged	Hidden	Locked	Phase	Related	Sign	Interest	Inflation	GST	Notes	Total
Acquisition Costs												
Fixed Price	86				1		--	✔				(4,200,000)
Land Transfer Tax	14			✔	1	✔	--	✔				(84,000)
Agent Commission	16				1	✔	--	✔				0
Legal Fee	17				1		--	✔				(50,000)
Master Planning	20				1		--	✔				(45,000)
RE Tax Carry	21				1		--	✔				0
Additional Fees	22				1		--	✔				0
Total for Acquisition Costs												(4,379,000)
Construction Costs												
City Levy	27				1		+-	✔				0
Offsite Services	28				1		--	✔				0
Con. - Retail Tenant A	24				1		--	✔	✔			(4,920,000)
Con. - Retail Tenant B	24				1		--	✔				(4,800,000)
Con. - Retail Tenant C	24				1		--	✔				(2,160,000)
Con. - Office Tenant A	24				1		--	✔				(960,000)
Con. - Office Tenant B	24				1		--	✔				(2,400,000)

Heading: Each row has a heading in the first column. The heading is normally filled in automatically from the Definition screen, but you can specify new headings in the cash flow. The heading is printed in the cash flow reports.

Category: Each row has a cost/revenue category automatically assigned when it is created. The category tells ARGUS Developer how to treat the item. You are not allowed to change the category.

Tagged: Rows can be tagged so that an operation can be performed on the entire block. When a row is tagged, a “Y” shows in the cell and the row is colored with a darker background.

Hidden: A row may be hidden, so that its data cells are not included in row/column totals, neither do they attract any interest. When a row is hidden, a “Y” shows in the cell.

Locked: A locked row is one on which the data cells cannot be changed by typing a value into the grid. When a row is locked, a “Y” shows in the cell.

Phase: Shows the phase number to which the row belongs. You are not allowed to change the phase number.

Rows: can be related to other rows by defining a relationship at a fixed percentage. Where a row is related, a “Y” shows in the cell.

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Sign: Shows the sign for the values on the row: ++ indicates a revenue, -- a cost, -+ a cost offsetting income and +- income offsetting cost.

Interest: When Basic Finance (Interest Sets) is applied to a project, each row has an interest set attached to it. This governs the rate at which interest is calculated on each of the data cells. The interest set number is shown in this cell. When Structured Finance is applied to a project, this column is not displayed.

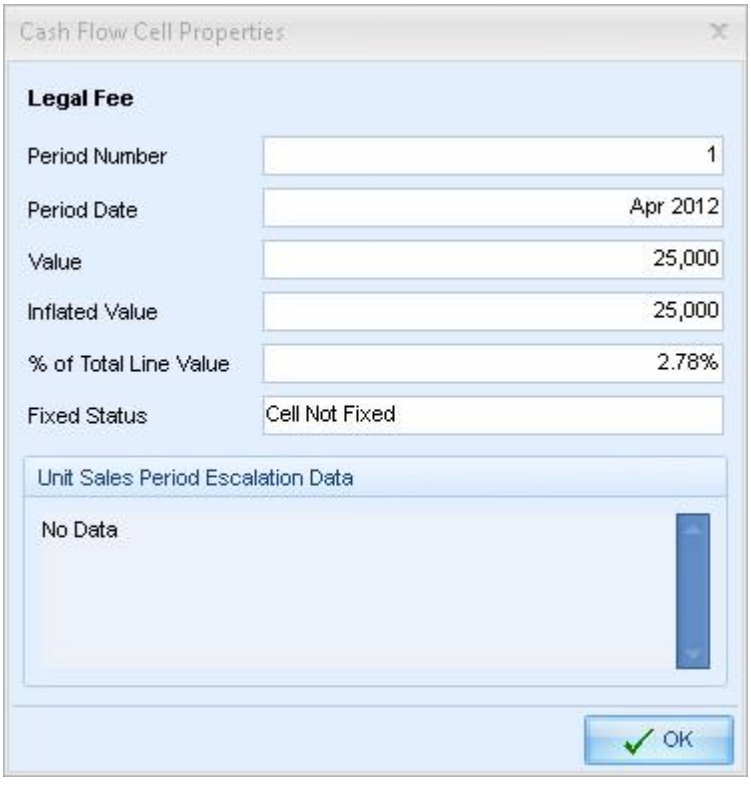
Inflation: Each row may have an inflation or escalation set attached to it. This governs the rate at which inflation or growth is calculated on each of the data cells. If inflation has been applied, then a "Y" is shown in the cell. If no inflation set is applied to a row, then "N" will be displayed.

Sales Tax: Each row may attract Sales Tax (either VAT or GST depending on your region) at any specified rate together with a rate at which the tax may be recovered. If a row attracts sales tax, a "Y" is shown in the cell.

Notes: Each row can have notes attached. If a row has notes defined, a "Y" is shown in the cell. You can add notes by clicking on the Notes cell in the grid; this will open an editor window.

Cell Properties

Additional information is available for each cell in the cash flow. You can inspect a cell's value – both uninflated and inflated, plus its ratio of the whole row total using the Cell Properties window.



Period Number: This is the month for the selected cell.

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Value: This is the value of the cell.

Inflated Value: This is the value plus any inflation.

Distribution: This is the percentage of the cell in terms of the total for the entire row.

Fixed: This indicates whether or not the cell is fixed.

Unit Sales Period Escalation Data: This shows the escalation information for unit sales distributions.

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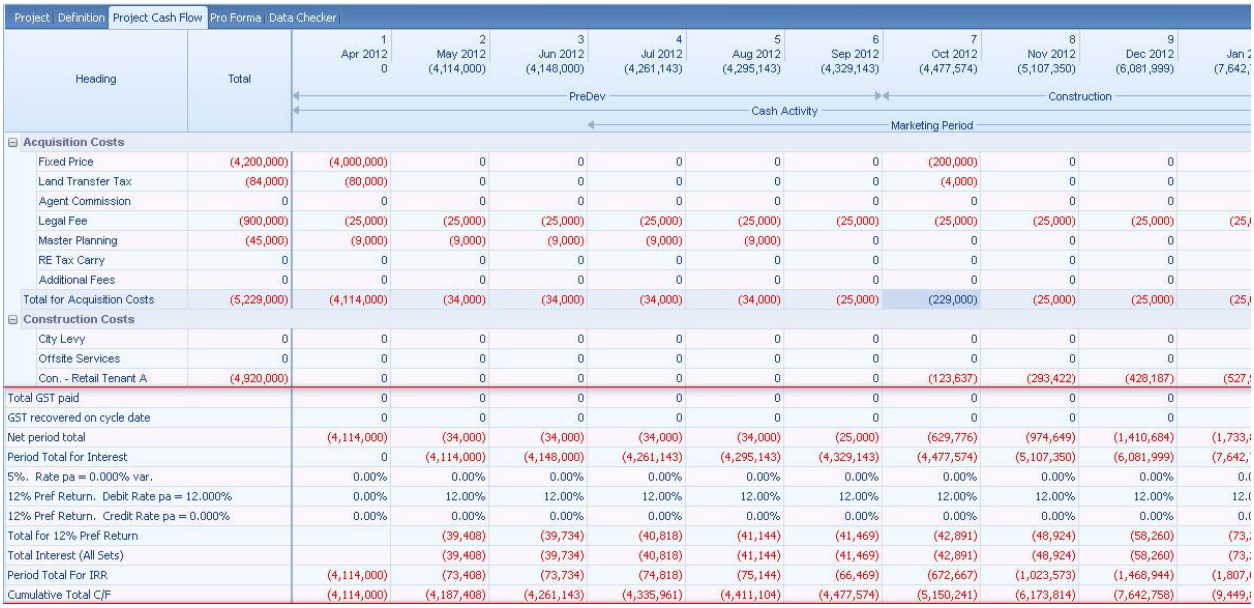
Finance Cash Flow: Basic Finance (Interest Sets)

The Cash Flow can be expanded to show a second grid containing column totals, interest and inflation rates, and VAT payments and receipts when Basic (Interest Sets) has been selected as the financing method in the Finance tab of Assumptions for Calculation.

You can use the Finance view to override the periodic rates for any of the interest and inflation sets or to enter the fixed interest total for a period.

To show the Finance Cash Flow, select the **Interest Totals** command in the View group. The Finance grid is shown here outlined in red for illustrative purposes:



Project | Definition | Project Cash Flow | Pro Forma | Data Checker

Heading	Total	1 Apr 2012 0	2 May 2012 (4,114,000)	3 Jun 2012 (4,148,000)	4 Jul 2012 (4,261,143)	5 Aug 2012 (4,295,143)	6 Sep 2012 (4,329,143)	7 Oct 2012 (4,477,574)	8 Nov 2012 (5,107,350)	9 Dec 2012 (6,081,999)	Jan 2 (7,642,
		PreDev						Construction			
		Cash Activity									
		Marketing Period									
Acquisition Costs											
Fixed Price	(4,200,000)	(4,000,000)	0	0	0	0	0	(200,000)	0	0	
Land Transfer Tax	(84,000)	(80,000)	0	0	0	0	0	(4,000)	0	0	
Agent Commission	0	0	0	0	0	0	0	0	0	0	
Legal Fee	(900,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,
Master Planning	(45,000)	(9,000)	(9,000)	(9,000)	(9,000)	(9,000)	0	0	0	0	
RE Tax Carry	0	0	0	0	0	0	0	0	0	0	
Additional Fees	0	0	0	0	0	0	0	0	0	0	
Total for Acquisition Costs	(5,229,000)	(4,114,000)	(34,000)	(34,000)	(34,000)	(34,000)	(25,000)	(229,000)	(25,000)	(25,000)	(25,
Construction Costs											
City Levy	0	0	0	0	0	0	0	0	0	0	
Offsite Services	0	0	0	0	0	0	0	0	0	0	
Con. - Retail Tenant A	(4,920,000)	0	0	0	0	0	0	(123,637)	(293,422)	(428,187)	(527,
Total GST paid		0	0	0	0	0	0	0	0	0	
GST recovered on cycle date		0	0	0	0	0	0	0	0	0	
Net period total		(4,114,000)	(34,000)	(34,000)	(34,000)	(34,000)	(25,000)	(629,776)	(974,649)	(1,410,684)	(1,733,
Period Total for Interest		0	(4,114,000)	(4,148,000)	(4,261,143)	(4,295,143)	(4,329,143)	(4,477,574)	(5,107,350)	(6,081,999)	(7,642,
5%. Rate pa = 0.000% var.		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0
12% Pref Return. Debit Rate pa = 12.000%		0.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.0
12% Pref Return. Credit Rate pa = 0.000%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0
Total for 12% Pref Return			(39,408)	(39,734)	(40,818)	(41,144)	(41,469)	(42,891)	(48,924)	(58,260)	(73,
Total Interest (All Sets)			(39,408)	(39,734)	(40,818)	(41,144)	(41,469)	(42,891)	(48,924)	(58,260)	(73,
Period Total For IRR		(4,114,000)	(73,408)	(73,734)	(74,818)	(75,144)	(66,469)	(672,667)	(1,023,573)	(1,468,944)	(1,807,
Cumulative Total C/F		(4,114,000)	(4,187,408)	(4,261,143)	(4,335,961)	(4,411,104)	(4,477,574)	(5,150,241)	(6,173,814)	(7,642,758)	(9,449,

In the Finance view, you can show less information by selecting Show > Brief Interest Details from the popup cash flow menu. This view hides the inflation and interest rate rows and shows only sales tax (if applied), the period totals and total interest amounts.

Inflation Rate Data

The inflation rates for any particular inflation set can be viewed in the finance grid. The rates can be modified from here so that inflation can be quickly recalculated for any rows to which the set is attached.

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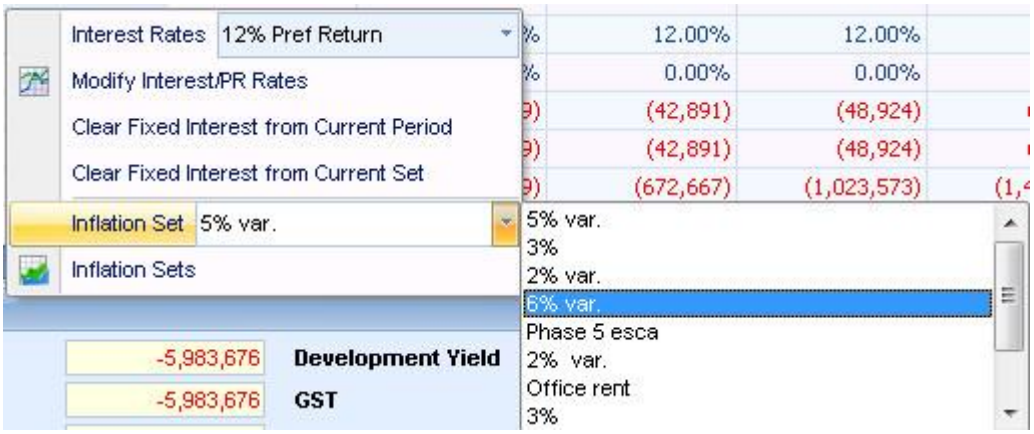

To view inflation or escalation rates

1. Right-click within the Finance grid.
2. Select an *Inflation/Escalation Set* from the drop-down list.

To modify inflation or escalation rates

1. Right-click within the Finance grid.
2. Select the **Inflation Sets** command.
3. Make any changes in the Stepped Inflation or Escalation tabs.

Current Interest Set

Shows the Debit and Credit rates for any of the defined interest sets. You can modify the profile of rates to easily recalculate interest for any items attached to the set.

To view interest rates

1. Right-click within the Finance grid.
2. Select an *Interest Set* from the drop-down.

To change a fixed interest rate

1. Right-click within the Finance grid.
2. Select the **Modify Interest/PR Rates** command.
3. Make any changes in the Stepped Interest tab.

To enter a fixed interest cost

1. Right-click within the Finance grid.
2. Select an *Interest Set* from the drop-down list.
3. Move to the Total for Set Name row.
4. Type the fixed interest cost into the required period cell and press return. The Finance grid will display the amount in the Debit Rate cell and blank out the rate in the Credit Rate cell.

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Structured Finance Cash Flow

The Structured Finance cash flow has its own tab from Version 6 onwards. It is available only when Structured Finance is the finance mode for the project. The Finance Cash Flow displays individual cash flows for each Finance partner as well as Project and Combined Partner cash flows.

See Also

Structured Finance

In the Finance Cash Flow, each individual partner cash flow can be expanded or hidden by clicking onto the "+/-" expansion button in the title bar that shows each partner's name. All partner cash flows can be expanded or hidden simultaneously using the **Expand** and **Collapse** commands in the View group.

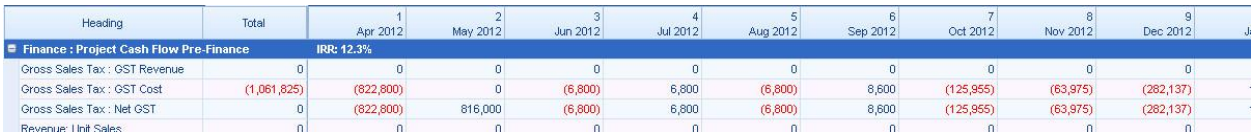
Project | Definition | Project Cash Flow | Finance Cash Flow | Pro Forma | Performance Measures | Data Checker

Heading	Total	1 Apr 2012	2 May 2012	3 Jun 2012	4 Jul 2012	5 Aug 2012	6 Sep 2012	7 Oct 2012	8 Nov 2012	9 Dec 2012	Jan 2
Finance : Project Cash Flow Pre-Finance		IRR: 12.4%									
Finance : Land Loan		IRR: 0.0% Profit Amount: $0									
Finance : Equity Investor 1		IRR: 27.2% After Tax IRR: 21.3% ROE: 87.2% After Tax ROE: 65.4% Profit Amount: $3,111,103 Total After Tax Profit: $2,333,328									
Timed Contribution: Project	0	0	0	0	0	0	0	0	0	0	
Auto. Project Cont. - Project Costs	*(3,537,360)*	*(1,585,500)*	*(25,500)*	*(25,500)*	*(25,500)*	*(25,500)*	*(18,750)*	*(472,332)*	*(730,987)*	*(627,791)*	
Auto. Project Cont. - Project Funde	*(30,457)*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*(30,457)*	
Auto. Project Contribution	(3,567,817)	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Total Contribution	(3,567,817)	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Interest	0	0	0	0	0	0	0	0	0	0	
Timed Repayment: Project	0	0	0	0	0	0	0	0	0	0	
Auto. Repayment	3,567,817	0	0	0	0	0	0	0	0	0	
Total Repayment	3,567,817	0	0	0	0	0	0	0	0	0	
Closing Balance	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Timed Pre-Tax Profit Participation	0	0	0	0	0	0	0	0	0	0	
Auto. Pre-Tax Profit Participation	3,111,103	0	0	0	0	0	0	0	0	0	
Total Pre-Tax Profit Participation	3,111,103	0	0	0	0	0	0	0	0	0	
Net Cash Flow (IRR)	3,111,103	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Cumulative Net Cash Flow	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Tax on Profit	(777,776)	0	0	0	0	0	0	0	0	0	
After Tax Profit	2,333,328	0	0	0	0	0	0	0	0	0	
Net Cash Flow After Tax (IRR)	2,333,328	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Cumulative Net Cash Flow After Tax	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Finance : Developer		IRR: 24.3% After Tax IRR: 20.0% ROE: 76.2% After Tax ROE: 61.0% Profit Amount: $906,699 Total After Tax Profit: $725,359									
Finance : Construction loan		IRR: 6.7% Profit Amount: $0									
Finance : Balancing Account		IRR: 0.0%									
Finance : Combined Sources		IRR: 7.8% After Tax IRR: 6.0%									

Project Cash Flow Pre-Finance

As one of the component cash flows of Structured Finance, the Project Cash Flow is an auto-created cash flow used as a snapshot of the individual costs and revenues.

When a project has sales tax calculations active, the pre-finance cash flow shows several extra lines for Net GST, GST Cost and GST Revenue.



Heading	Total	1 Apr 2012	2 May 2012	3 Jun 2012	4 Jul 2012	5 Aug 2012	6 Sep 2012	7 Oct 2012	8 Nov 2012	9 Dec 2012	J
Finance : Project Cash Flow Pre-Finance		IRR: 12.3%									
Gross Sales Tax : GST Revenue	0	0	0	0	0	0	0	0	0	0	
Gross Sales Tax : GST Cost	(1,061,825)	(822,800)	0	(6,800)	6,800	(6,800)	8,600	(125,955)	(63,975)	(282,137)	
Gross Sales Tax : Net GST	0	(822,800)	816,000	(6,800)	6,800	(6,800)	8,600	(125,955)	(63,975)	(282,137)	
Revenue: Unit Sales	0	0	0	0	0	0	0	0	0	0	

- GST Revenue: This is the amount of sales tax that is added to the revenue. This happens when there is reclamation of the tax.
- GST Cost: This is the amount of sales tax that is added to or subtracted from the project costs. This happens (a) when there is a payment of sales tax without reclamation; (b) when there is reclamation of sales tax.

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- Net GST: This line shows the net amount of sales tax paid and reclaimed in each period The Net GST will be used to (a) add to costs; (b) offset costs; and (c) add to revenues.

Cash Flow View Cycles

The Cash Flow is normally set up to show a monthly periodic view of data where each column represents a single month. Other view cycles are available, such as Quarterly, where each column represents three months of data. The standard view cycles that are available are: monthly, quarterly, semi-annual and annual.

Cash flow view cycles are available to use whenever you look at cash flow data, or print cash flow reports. In addition to the standard view cycles, other types of view cycle can be created to suit specific project or accounting requirements. To create other view cycles, select *Edit View Cycles* from the **Cycle** drop-down in the View group.

To create a regular periodic cycle

1. Select *Edit View Cycles* from the **Cycle** drop-down in the View group.
2. Select the **Add > New Basic Cycle** command and enter a name for the new cycle.
3. Enter the number of months that each column represents into the Months in Cycle box.
4. Click the **OK** button.

To create a cycle aligned to a month name

1. Select *Edit View Cycles* from the **Cycle** drop-down in the View group.
2. Select the **Add > New Calendar Cycle** command and enter a name for the new cycle.
3. Select the number of months that each column represents from the **Show me** drop-down box.
4. Select the month name on which the cycle starts.
5. Click the **OK** button.

To create a custom cycle

1. Select *Edit View Cycles* from the **Cycle** drop-down in the View group.
2. Select the **Add > New Split Cycle** command and enter a name for the new cycle.
3. Enter the length of time over which you want a regular cycle into the **Months** box.
4. Select the regular cycle from the **Cycle** drop-down box.
5. Click the **OK** button.

To create a cycle based on the mortgage date

1. Select *Edit View Cycles* from the **Cycle** drop-down in the View group.
2. Select the **Add > New Mortgage Takeout Cycle** command and enter a name for the new cycle.

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3. Enter the regular cycle for the months before the mortgage takeout period.
4. Select the date for the mortgage takeout period based on either the *Earliest Mortgage date* or the *Latest Mortgage date* from any active finance structures.
5. Enter the regular cycle for the months after the mortgage takeout period.
6. Click the **OK** button.

Cash flow search

To search for a specific item in the Project cash flow, use the **Find** command in the Rows group:

In the **Find what** field, type in what you are looking for - this could be a specific number, or row heading. Previous search strings will be stored so you can use them again at a later time - just select them in the drop-down list.

Use the Look In controls to specify where you wish to search within the cash flow.

In the Search Options section, you can use the controls to fine-tune your search.

Use the controls in the When data is found section to specify what action will be taken when the object of the search has been found.

Click on **Find**, or Find Next if you wish to skip to the next occurrence.

Grouping Rows

In the cash flow, you can set up groupings of rows to make the cash flow presentation easier for you to read. You have a choice of 2 types of grouping complexity:

1. Basic grouping

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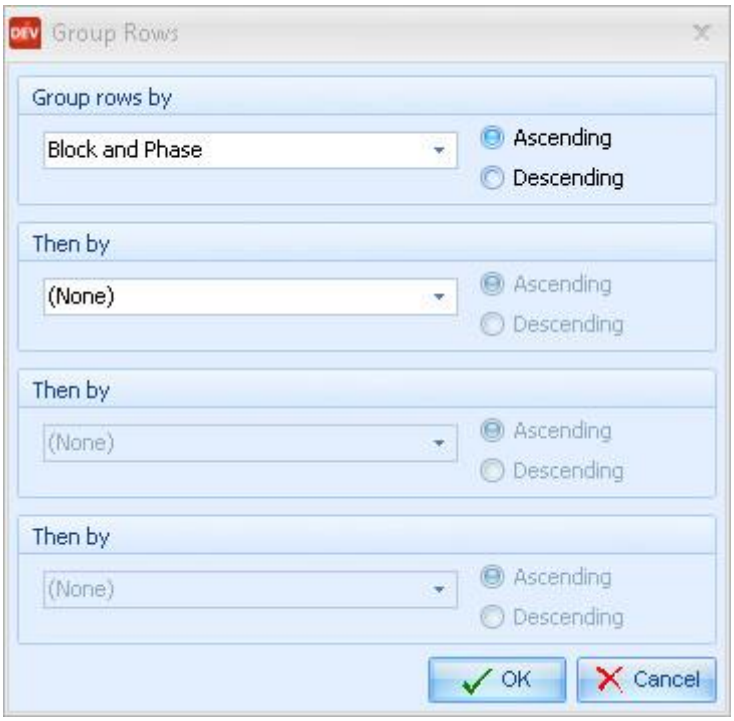
2. Advanced grouping

Basic Grouping

Select the **Group Rows** command from the **Group** drop-down in the Rows group.

This opens the Group Rows window



Here, you can define up to 4 levels of grouping by selecting types of rows and row attributes, and defining a sort direction.

For example, in level 1 you could select *Category*, and in level 2 you could select *Cost Code*. This would perform the primary grouping on the category, and a secondary grouping on the cost code.

Other grouping criteria you can select here are attributes that have been set, such as *Locked*, *Hidden* or *Tagged*.

You can turn off a grouping level by selecting *None*. This will turn off the grouping level and any other level below it.

The default option is *Default Category Order*, which groups the rows in a default order *factory settings*.

When you have defined a grouping pattern in this window and clicked on the **OK** button, the rows in the cash flow will arrange themselves according to this pattern.

Custom Grouping

Select the **Group Rows** command from the **Group** drop-down in the Rows group.

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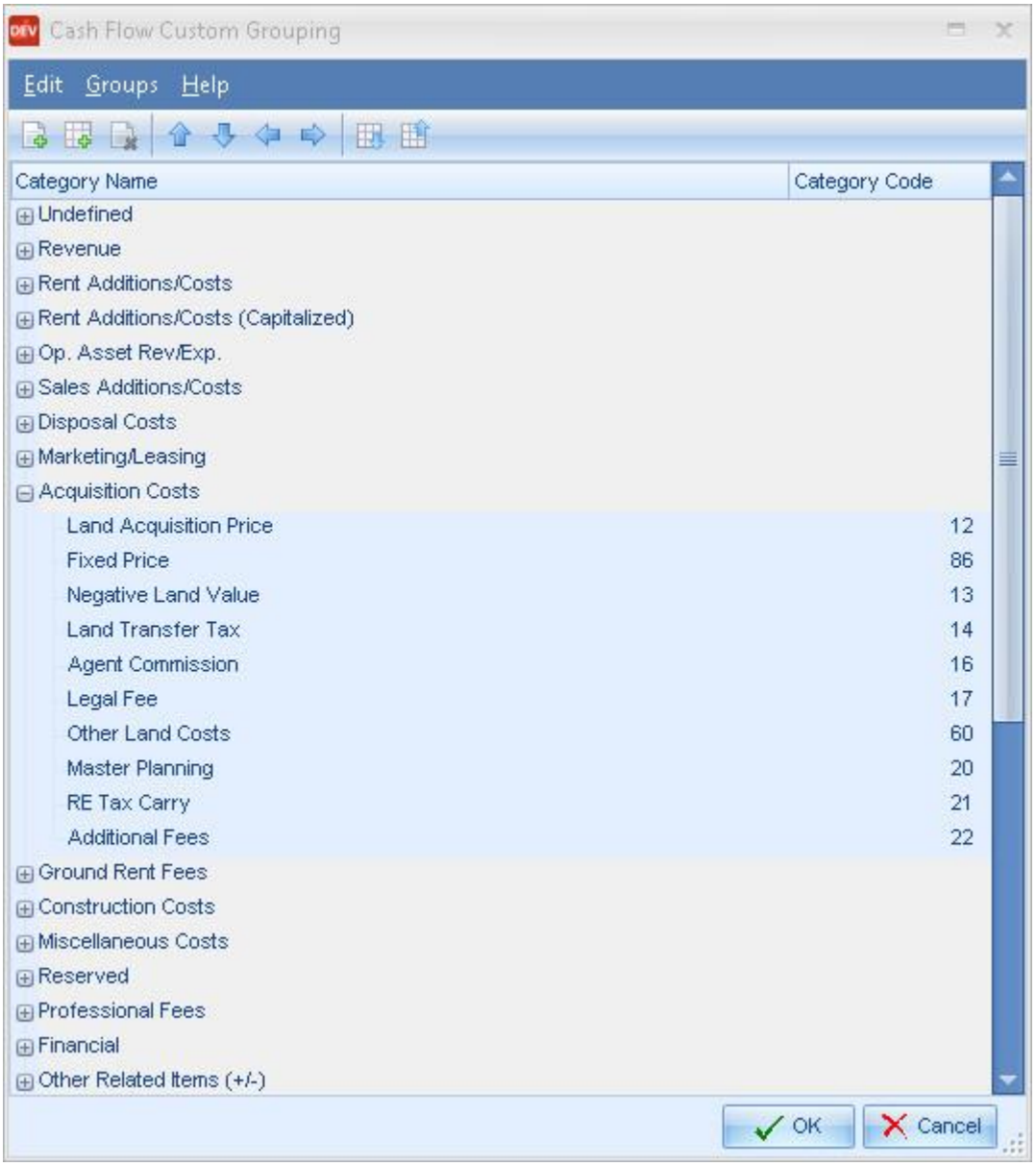
This opens the Custom Grouping window:



In the Cashflow Custom Grouping window, you can move the existing groupings and row items about by using the arrow buttons.

If you wish to create new groups, you can use the *Edit*, *Add Main Group and Edit*, or *Add Sub Group* options. You can give these groups any name you want, and you can drag existing row items from other groups into a group you have created.

When you click the *OK* button, the cash flow row and grouping structure will change to reflect the modifications you have made.

Sorting the Cash Flow

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Change the order in which rows are shown by selecting the **Sort** command from the **Group** drop-down in the Rows group.

This opens the Cash flow Sort Rows window:

Here, you can define up to 4 levels of sorting by selecting types of rows and row attributes, and defining a sort direction.

For example, in level 1 you could select *Category*, and in level 2 you could select *Cost Code*. This would perform the primary sort on the category, and a secondary sort on the cost code.

Other sort criteria you can select here are attributes that have been set, such as *Locked*, *Hidden* or *Tagged*.

You can turn off a sort level by selecting *None*. This will turn off the sort level and any other level below it.

The default option is *Natural Order*, which sorts the rows in a default order *factory settings*.

When you have defined a sorting pattern in this window and clicked on the **OK** button, the rows in the cash flow will arrange themselves according to this pattern.

Column and Row Options in Project Cash Flow

The Project cash flow can show extra columns of information such as row totals or row properties. Use the popup menu in the cash flow by right-clicking then selecting the Show option.

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Row Total: This column is a total of all the values on each row.

Row Present Value: This column shows the present value of the values on each row.

Rows with Zero Value: This shows any row with a total value of zero.

Row Properties: This shows the Row Properties columns.

Period Time line: This shows a snapshot of the time scale and phasing stages at the head of the cash flow.

Summary Options in Project Cash Flow

The following options are available to show or hide additional detail in cash flow groups. These options are found on the **Group** drop-down in the Rows group.

Group Summaries: These are extra rows that contain totals for each group of rows that you have defined. Merge Section Summaries by Department Category: This merges together several levels of section summaries to produce one summary. This applies only to operated asset cash flows.

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Structured Finance Cash Flow

The Structured Finance cash flow has its own tab from Version 6 onwards. It is available only when Structured Finance is the finance mode for the project. The Finance Cash Flow displays individual cash flows for each finance partner as well as project and combined Partner cash flows.

See Also

Structured Finance

In the Finance Cash Flow, each individual partner cash flow can be expanded or hidden by clicking onto the "+/-" expansion button in the title bar that shows each partner's name. All partner cash flows can be expanded or hidden simultaneously using the **Expand** and **Collapse** commands in the View group.

Project | Definition | Project Cash Flow | Finance Cash Flow | Pro Forma | Performance Measures | Data Checker

Heading	Total	1 Apr 2012	2 May 2012	3 Jun 2012	4 Jul 2012	5 Aug 2012	6 Sep 2012	7 Oct 2012	8 Nov 2012	9 Dec 2012	Jan 2
Finance : Project Cash Flow Pre-Finance		**IRR: 12.4%**									
Finance : Land Loan		**IRR: 0.0% Profit Amount: $0**									
Finance : Equity Investor 1		**IRR: 27.2% After Tax IRR: 21.3% ROE: 87.2% After Tax ROE: 65.4% Profit Amount: $3,111,103 Total After Tax Profit: $2,333,328**									
Timed Contribution: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
Auto. Project Cont. - Project Costs	*(3,537,360)*	*(1,585,500)*	*(25,500)*	*(25,500)*	*(25,500)*	*(25,500)*	*(18,750)*	*(472,332)*	*(730,987)*	*(627,791)*	
Auto. Project Cont. - Project Funde	*(30,457)*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*(30,457)*	
Auto. Project Contribution	(3,567,817)	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Total Contribution	(3,567,817)	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Interest	0	0	0	0	0	0	0	0	0	0	
Timed Repayment: Project	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
Auto. Repayment	3,567,817	0	0	0	0	0	0	0	0	0	
Total Repayment	3,567,817	0	0	0	0	0	0	0	0	0	
Closing Balance	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Timed Pre-Tax Profit Participation	0	0	0	0	0	0	0	0	0	0	
Auto. Pre-Tax Profit Participation	3,111,103	0	0	0	0	0	0	0	0	0	
Total Pre-Tax Profit Participation	3,111,103	0	0	0	0	0	0	0	0	0	
Net Cash Flow (IRR)	3,111,103	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Cumulative Net Cash Flow	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Tax on Profit	(777,776)	0	0	0	0	0	0	0	0	0	
After Tax Profit	2,333,328	0	0	0	0	0	0	0	0	0	
Net Cash Flow After Tax (IRR)	2,333,328	(1,585,500)	(25,500)	(25,500)	(25,500)	(25,500)	(18,750)	(472,332)	(730,987)	(658,248)	
Cumulative Net Cash Flow After Tax	0	(1,585,500)	(1,611,000)	(1,636,500)	(1,662,000)	(1,687,500)	(1,706,250)	(2,178,582)	(2,909,569)	(3,567,817)	(3,567,8
Finance : Developer		**IRR: 24.3% After Tax IRR: 20.0% ROE: 76.2% After Tax ROE: 61.0% Profit Amount: $906,699 Total After Tax Profit: $725,359**									
Finance : Construction loan		**IRR: 6.7% Profit Amount: $0**									
Finance : Balancing Account		**IRR: 0.0%**									
Finance : Combined Sources		**IRR: 7.8% After Tax IRR: 6.0%**									

Project Cash Flow Pre-Finance

As one of the component cash flows of Structured Finance, the project cash Flow is an auto-created cash flow used as a snapshot of the individual costs and revenues. When a project has sales tax calculations active, the pre-finance cash flow shows several extra lines for Net GST, GST cost and GST Revenue.

Heading	Total	1 Apr 2012	2 May 2012	3 Jun 2012	4 Jul 2012	5 Aug 2012	6 Sep 2012	7 Oct 2012	8 Nov 2012	9 Dec 2012	J
Finance : Project Cash Flow Pre-Finance		**IRR: 12.3%**									
Gross Sales Tax : GST Revenue	0	0	0	0	0	0	0	0	0	0	
Gross Sales Tax : GST Cost	(1,061,825)	(822,800)	0	(6,800)	6,800	(6,800)	8,600	(125,955)	(63,975)	(282,137)	
Gross Sales Tax : Net GST	0	(822,800)	816,000	(6,800)	6,800	(6,800)	8,600	(125,955)	(63,975)	(282,137)	
Revenue: Unit Sales	0	0	0	0	0	0	0	0	0	0	

- **GST Revenue:** This is the amount of sales tax that is added to the revenue. This happens when there is reclamation of the tax.

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- **GST Cost:** This is the amount of sales tax that is added to or subtracted from the project costs. This happens (a) when there is a payment of sales tax without reclamation; (b) when there is reclamation of sales tax.
- **Net GST:** This line shows the net amount of sales tax paid and reclaimed in each period. The net GST will be used to (a) add to costs; (b) offset costs; and (c) add to revenues.

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Cash Flow View Cycles

The Cash Flow is normally set up to show a monthly periodic view of data where each column represents a single month. Other view cycles are available, such as Quarterly, where each column represents three months of data. The standard view cycles that are available are: monthly, quarterly, semi-annual, and annual. Cash flow view cycles are available to use whenever you look at cash flow data, or print cash flow reports. In addition to the standard view cycles, other types of view cycle can be created to suit specific project or accounting requirements. To create other view cycles, select *Edit View Cycles* in the drop-down list in the **Cycle** field in the View group.

To create a regular periodic cycle

1. Select *Edit View Cycles* option in the drop-down list in the **Cycle** field in the View group.
2. Select the **Add > New Basic Cycle** command and enter a name for the new cycle.
3. Enter the number of months that each column represents into the Months in Cycle box.
4. Click the **OK** button.

To create a cycle aligned to a month name

1. Select *Edit View Cycles* option in the drop-down list in the **Cycle** field in the View group.
2. Select the **Add > New Calendar Cycle** command and enter a name for the new cycle.
3. Select the number of months that each column represents in the drop-down box in the *Show me* field.
4. Select the month name on which the cycle starts.
5. Click the **OK** button.

To create a custom cycle

1. Select the *Edit View Cycles* option in the drop-down list in the **Cycle** field in the View group.
2. Select the **Add > New Split Cycle** command and enter a name for the new cycle.
3. Enter the length of time over which you want a regular cycle into the Months box.
4. Select the regular cycle in the drop-down box of the **Cycle** field.
5. Click the **OK** button.

To create a cycle based on the mortgage date

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1. Select the *Edit View Cycles* in the drop-down list of the **Cycle** field in the View group.

2. Select the **Add > New Mortgage Takeout Cycle** command and enter a name for the new cycle.

3. Enter the regular cycle for the months before the mortgage takeout period.

4. Select the date for the mortgage takeout period based on either the *Earliest Mortgage date* or the *Latest Mortgage date* from any active finance structures.

5. Enter the regular cycle for the months after the mortgage takeout period.

6. Click the **OK** button.

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Cash Flow Search

To search for a specific item in the Project cash flow, use the **Find** command in the Rows group:

In the **Find what** field, type in what you are looking for - this could be a specific number, or row heading. Previous search strings will be stored so you can use them again at a later time - just select them in the drop-down list.

Use the Look In controls to specify where you wish to search within the cash flow.

In the Search Options section, you can use the controls to fine-tune your search.

Use the controls in the When data is found section to specify what action will be taken when the object of the search has been found.

Click on **Find**, or **Find Next** if you wish to skip to the next occurrence.

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Grouping Rows

In the cash flow, you can set up groupings of rows to make the cash flow presentation easier for you to read. You have a choice of two types of grouping complexity:

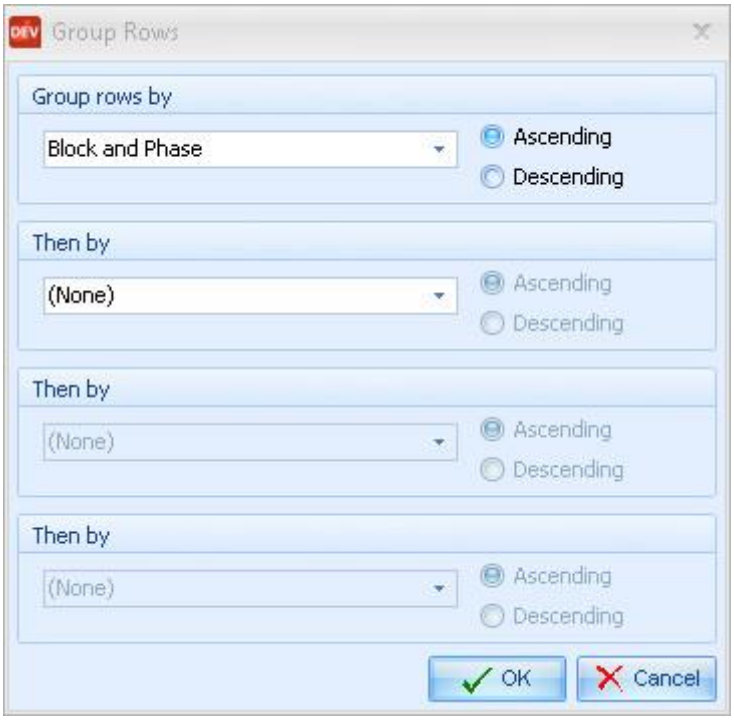
1. Basic grouping
2. Advanced grouping

Basic Grouping

Select the **Group Rows** command in the drop-down list from the **Group** field in the Rows group.

This opens the Group Rows window

Group Rows window



Here, you can define up to four levels of grouping by selecting types of rows and row attributes, and defining a sort direction.

For example, in level one you could select *Category*, and in level two you could select *Cost Code*. This would perform the primary grouping on the category and a secondary grouping on the cost code.

Other grouping criteria you can select here are attributes that have been set, such as *Locked*, *Hidden,* or *Tagged*.

You can turn off a grouping level by selecting *None*. This will turn off the grouping level and any other level below it.

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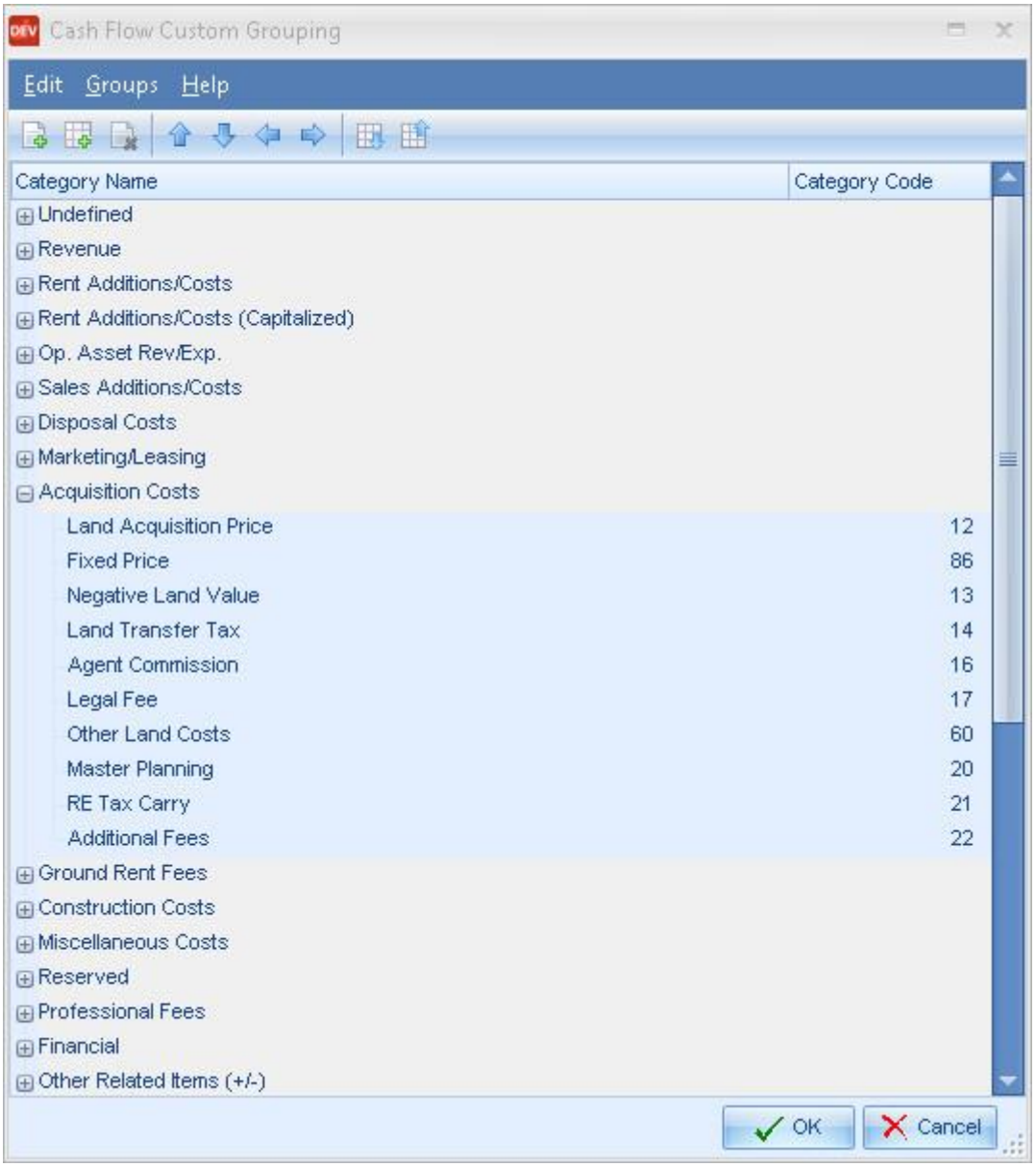
The default option is *Default Category Order*, which groups the rows in a default order (*factory settings*).

When you have defined a grouping pattern in this window and clicked on the **OK** button, the rows in the cash flow will arrange themselves according to this pattern.

Custom Grouping

Select the **Group Rows** command in the drop-down list in the **Group** field in the Rows group. This opens the Custom Grouping window.

Custom Grouping window



In the Cashflow Custom Grouping window, you can move the existing groupings and row items about by using the arrow buttons.

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If you wish to create new groups, you can use the **Edit, Add Main Group and Edit**, or **Add Sub Group** options. You can give these groups any name you want, and you can drag existing row items from other groups into a group you have created.

When you click the **OK** button, the cash flow row and grouping structure will change to reflect the modifications you have made.

Sorting the Cash Flow

Change the order in which rows are shown by selecting the **Sort** command in the drop-down list from the **Group** field in the Rows group. This opens the Cash flow Sort Rows window:

Cash Flow Sort Rows window

Here, you can define up to four levels of sorting by selecting types of rows and row attributes, and defining a sort direction.

For example, in level one you could select *Category*, and in level two you could select *Cost Code*. This would perform the primary sort on the category, and a secondary sort on the cost code.

Other sort criteria you can select here are attributes that have been set, such as *Locked*, *Hidden* or *Tagged*.

You can turn off a sort level by selecting *None*. This will turn off the sort level and any other level below it.

The default option is *Natural Order*, which sorts the rows in a default order (*factory settings*).

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When you have defined a sorting pattern in this window and clicked on the **OK** button, the rows in the cash flow will arrange themselves according to this pattern.

Column and Row Options in Project Cash Flow

The Project cash flow can show extra columns of information such as row totals or row properties. Use the popup menu in the cash flow by right-clicking then selecting the **Show** option.

Row Total: This column is a total of all the values on each row.

Row Present Value: This column shows the present value of the values on each row.

Rows with Zero Value: This shows any row with a total value of zero.

Row Properties: This shows the Row Properties columns.

Period Time Line: This shows a snapshot of the time scale and phasing stages at the head of the cash flow.

Summary Options in Project Cash Flow

The following options are available to show or hide additional detail in cash flow groups. These options are found in the drop-down field in the **Group** field in the Rows group.

Group Summaries: These are extra rows that contain totals for each group of rows that you have defined.

Merge Section Summaries by Department Category: This merges together several levels of section summaries to produce one summary. This applies only to operated asset cash flows.

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Value Added Tax

Value Added Tax

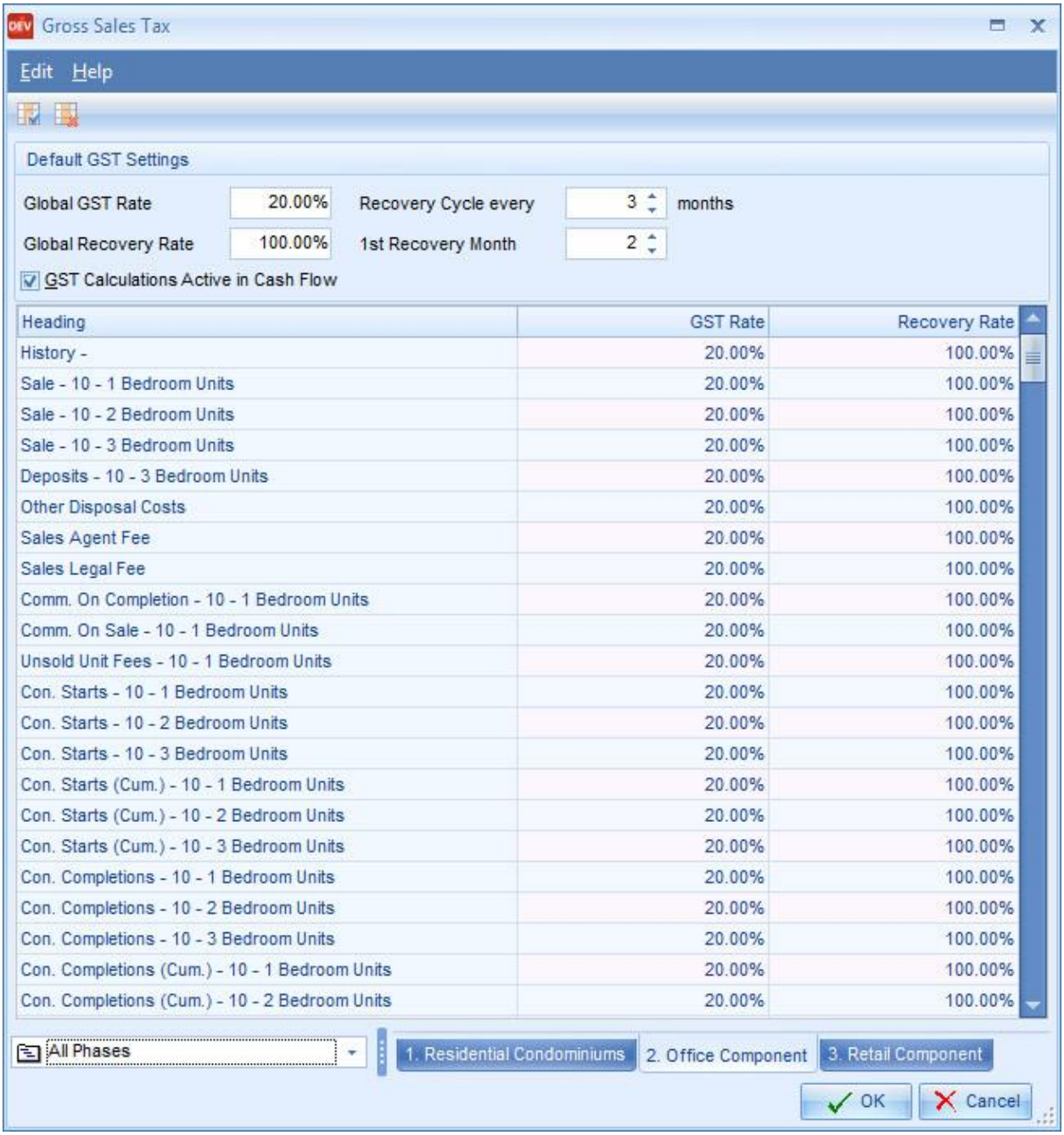
Select the **VAT** command in the Finance group on the Home tab to apply Value Added Tax to any item already entered through the Definition or Cash Flow areas. If you cannot see the command, select the *ARGUS Button >> Configuration >> General* option. You can then check the **Include Value Added Tax screens** option.

Use this section to set the Global VAT rate, Global Recovery Rate, Recovery Cycle, and the first period in which VAT will be recovered.

You can switch the VAT calculations on or off by selecting the **VAT Calculations Active in Cash Flow** option. The settings you have made to VAT and recovery rates will be unaffected by this switch.

Applying VAT

Use the VAT schedule to apply the global VAT options set or to enter specific VAT and Recovery rates for individual items.



The global VAT settings entered can be applied (and removed) to all items listed in the VAT schedule simultaneously using the commands on the tool bar.

To apply rates to all rows:
Select the **Apply Rates** command on the tool bar.

To remove rates in all rows:
Select the **Remove Rates** command on the tool bar.

Default Settings

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Global VAT Rate

This allows you to specify the VAT rate that will be applied to all items if you click on the **Apply Rates to All Rows** button.

Global Recovery Rate

This allows you to specify the recovery rate that will be applied to all items if you click on the **Apply Rates to All Rows** button.

Recovery Cycle every

This is the periodic cycle on which VAT is recovered. So, for example, if it is recovered quarterly, the recovery cycle would be three months; if it is recovered annually, the recovery cycle would be twelve months.

1st Recovery Month

This allows you to specify the first month of the project in which VAT is recovered. So for example, VAT is first recovered in month two of the project if you specify two here.

The VAT rates applied are displayed, item by item, in the VAT Schedule. This schedule shows three columns: Heading, VAT Rate and Recovery Rate.

The VAT rate and recovery rates may be varied for any item. Change any of the rates by moving to the cell and typing a new value.

VAT calculations may be viewed in the Finance Cash Flow.

See Also

Basic Finance

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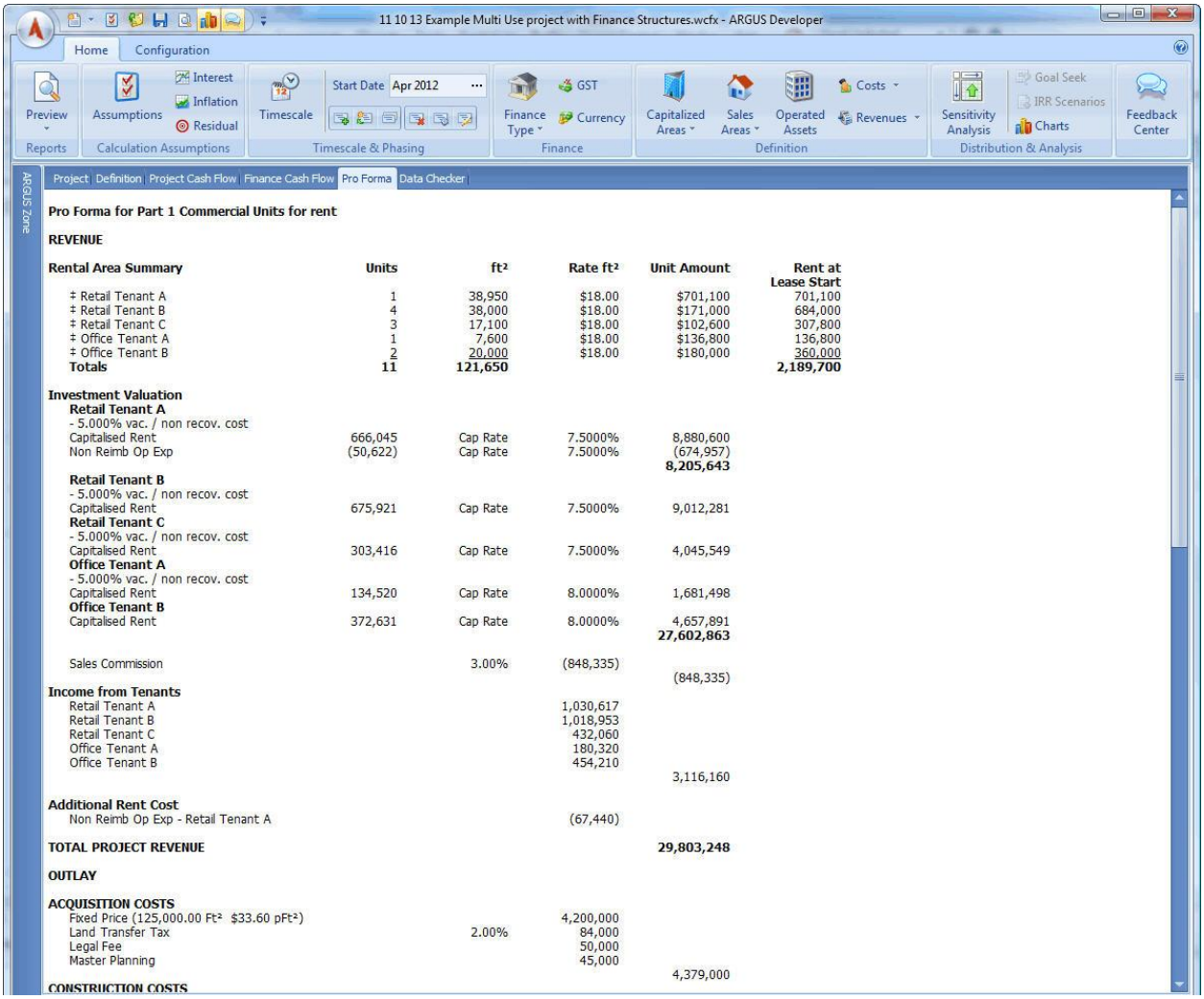
Reporting

Summary / Pro Forma Report

The Summary, or Pro Format tab shows all Revenues, Costs, Interest Costs, and Profit Distributions in a single report that is updated in real-time whenever any data or assumptions are changed. The report is laid out with revenues at the top, followed by costs, with interest, profit and other performance measures.



The level of detail of information displayed in the report can be changed; for example, either a detailed or concise investment valuation can be displayed. You are provided with many options to control the content and formatting of this report. Please see the topic on Summary Preferences for a detailed explanation.

To change the content or layout

1. Select the **ARGUS Button > Preferences** button and click on the Pro Forma tab.

2. Change the content by making selections in the Show Itemized Schedules and Show Performance Measures group boxes.

3. Change the formatting by making selections in the Formatting group box.

4. Click the **OK** button.

To preview or print the report

1. Select the **Pro Forma** menu option on the **Preview** button in the Reports group on the Home tab.

2. Change formatting and layout settings before selecting the **Print** command.

To export the report to Excel

1. Right click on the report in the Summary/Pro Forma tab.

2. Select **Export Summary Report /Pro Forma to Excel** option.

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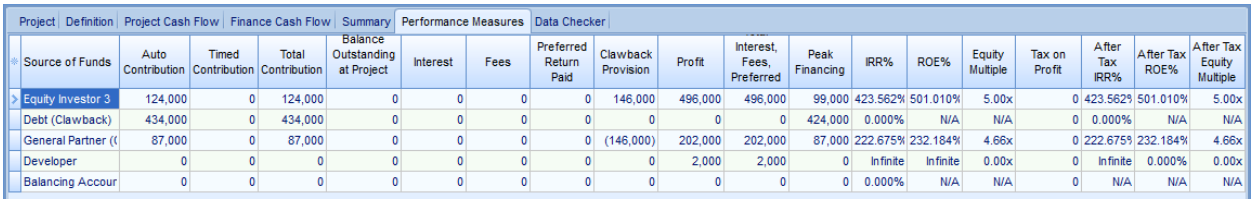
Performance Measures

The Performance Measures tab shows the returns for each finance Source in a Project, based on the currently active Phase/Group of Phases.

This view is a static, non-editable view of the current status of each Source, including the balancing account. If the balancing source is not showing zero contributions and/or profit, you should investigate the status of your other sources, as positive or negative balances in the Balancing Account tends to indicate incomplete profit distribution or under-funding of the project.

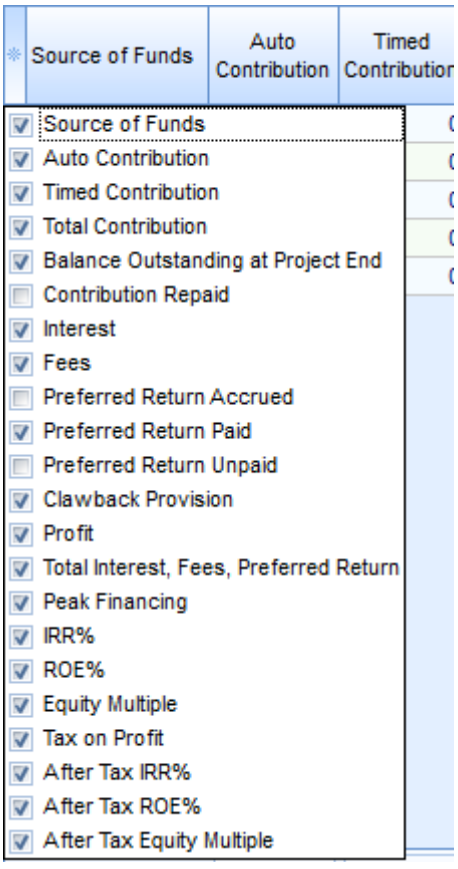


Project | Definition | Project Cash Flow | Finance Cash Flow | Summary | Performance Measures | Data Checker

Source of Funds	Auto Contribution	Timed Contribution	Total Contribution	Balance Outstanding at Project	Interest	Fees	Preferred Return Paid	Clawback Provision	Profit	Total Interest, Fees, Preferred	Peak Financing	IRR%	ROE%	Equity Multiple	Tax on Profit	After Tax IRR%	After Tax ROE%	After Tax Equity Multiple
Equity Investor 3	124,000	0	124,000	0	0	0	0	146,000	496,000	496,000	99,000	423.562%	501.010%	5.00x	0	423.562%	501.010%	5.00x
Debt (Clawback)	434,000	0	434,000	0	0	0	0	0	0	0	424,000	0.000%	N/A	N/A	0	0.000%	N/A	N/A
General Partner ((	87,000	0	87,000	0	0	0	0	(146,000)	202,000	202,000	87,000	222.675%	232.184%	4.66x	0	222.675%	232.184%	4.66x
Developer	0	0	0	0	0	0	0	0	2,000	2,000	0	Infinite	Infinite	0.00x	0	Infinite	0.000%	0.00x
Balancing Accour	0	0	0	0	0	0	0	0	0	0	0	0.000%	N/A	N/A	0	N/A	N/A	N/A

To show or hide columns

1. Click on the Column Detail Selector (*) at the top left of the table.
2. Select the columns you want to show by checking the appropriate options.
3. Select the columns you want to hide by un-checking the appropriate options.



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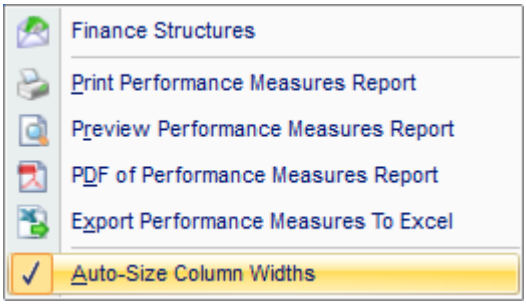
When you have selected the full number of available columns to show in the table, the column headings and the amounts within each cell may become truncated. This will happen when there is not enough room within each column to display all its data. In this circumstance, Developer can automatically set the column widths and show a scroll bar so that you may view columns to the far right of the table.

To auto-fit the columns to the screen width

1. Right-click anywhere in the table.
2. Select the **Auto-Size Column Widths** menu option.



Printing Performance Measures

A report of the Performance Measures can be either printed, previewed or exported to PDF by using the report buttons on the tool bar, or by right-clicking anywhere in the table and selecting the report option.

Heading	Type	Description
Source of Funds	Text	Based on the status of entries made in the sources and other tabs in this window.
Auto contribution	Amount	The total amount of money contributed to the Project by a Source, excluding any Timed (manually entered) Contributions.
Timed contribution	Amount	This is the total amount of money contributed to the Project by a Source per the Timed Contribution entries in the Cash Flow view.
Total contribution	Amount	This is the total of the auto and timed contributions for each source.
Balance Outstanding at Project End	Amount	Amount of contributions not repaid by the end of the project.

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Interest	Amount	The amount of interest attributable to the source.
Fees	Amount	The amount of fees attributable to the source.
Preferred Return	Amount	The amount of the preferred return profit distributed to the source.
Clawback Provision	Amount	The amount redistributed from a general partner's profit when the preferred return or other hurdle rate has not been met for the other equity investors.
Profit	Amount	The amount of profit that is distributed to this source during the course of the project. It includes any cash reserve that is distributed at the end of the project.
Total Interest, Fees, Preferred Return & Profit	Amount	The total of interest, fees, preferred return and profit for each source.
Peak Financing	Amount	This is the maximum amount drawn on a loan, calculated from the Loan Balance line.
IRR %	Percentage	The Internal Rate of Return, calculated on a monthly basis. Interest is only included if the switch on the assumptions - Finance tab is set to Include Interest in IRR calculations.
ROE %	Percentage	Return on Equity. This is the source's profit divided by their total contribution.
Tax on profit	Amount	Total amount of tax on profit calculated for this source.
After Tax IRR%	Percentage	The Internal Rate of Return based on the profit after tax.
After Tax ROE%	Percentage	The return on equity based on the profit after tax.

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Reports

Printing Reports

The reporting functions of ARGUS Developer have been completely redesigned, with a simpler interface, additional reports, and user-defined Report Groups for rapid printing of report packages for various audiences.

There are three main areas pertaining to the production of reports:

1. Report Setup: Allows for the creation of any number of report groups
2. Print Preview: Allows the user to view and configure individual reports or entire report groups
3. Report Options: Allows for setting preferences for page layout, report options, etc.

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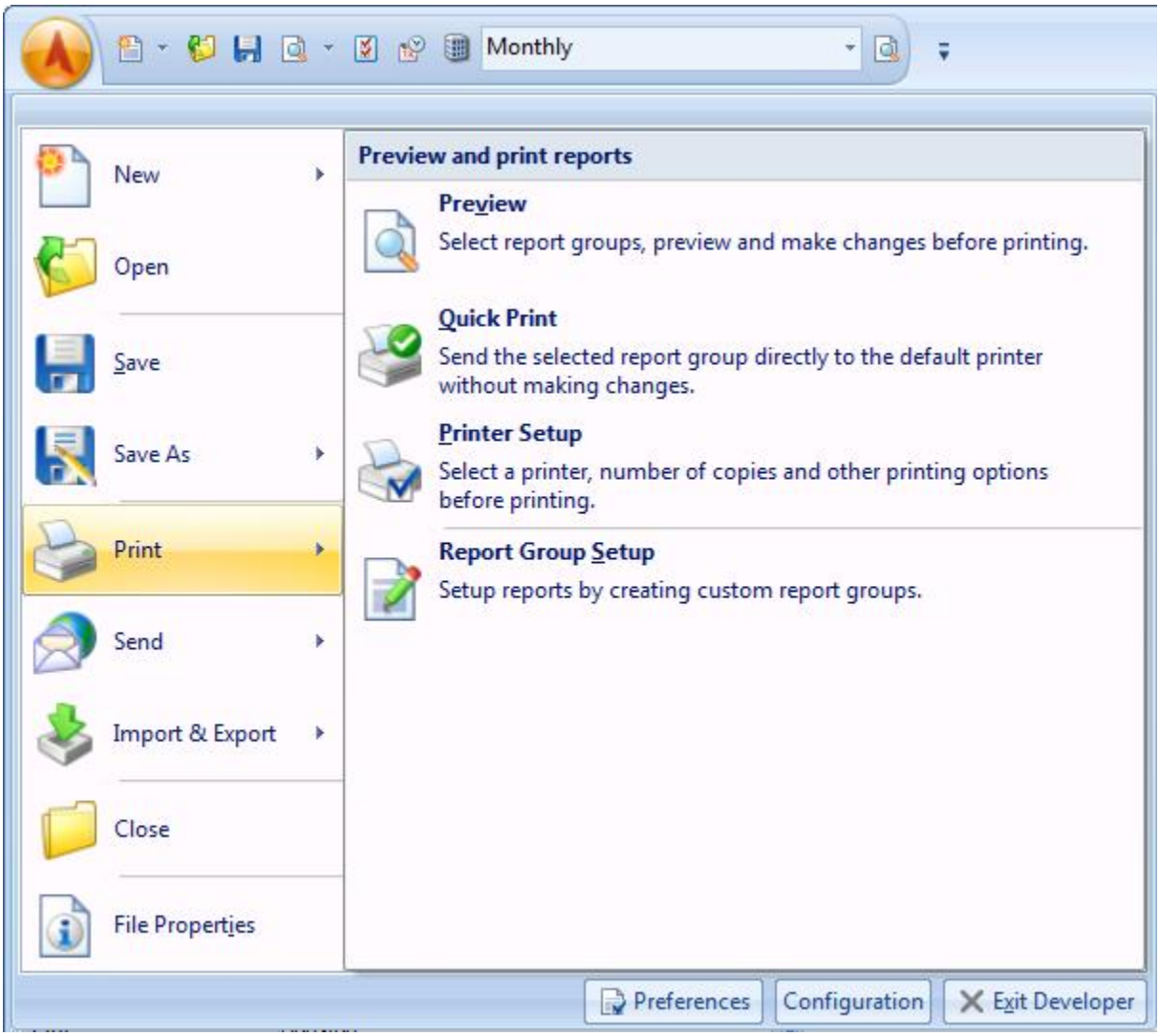
Report Setup

To access the Report Setup area, click on the main application button, then choose the **Print – Report Group Setup** command, as shown below:



The Report Group Setup screen shown below is focused primarily on defining Report Groups, which are user-defined collections of reports that are chosen from the list at the left. More detailed options for control of individual report layouts are provided in the Report Preview area, which is described following this section.

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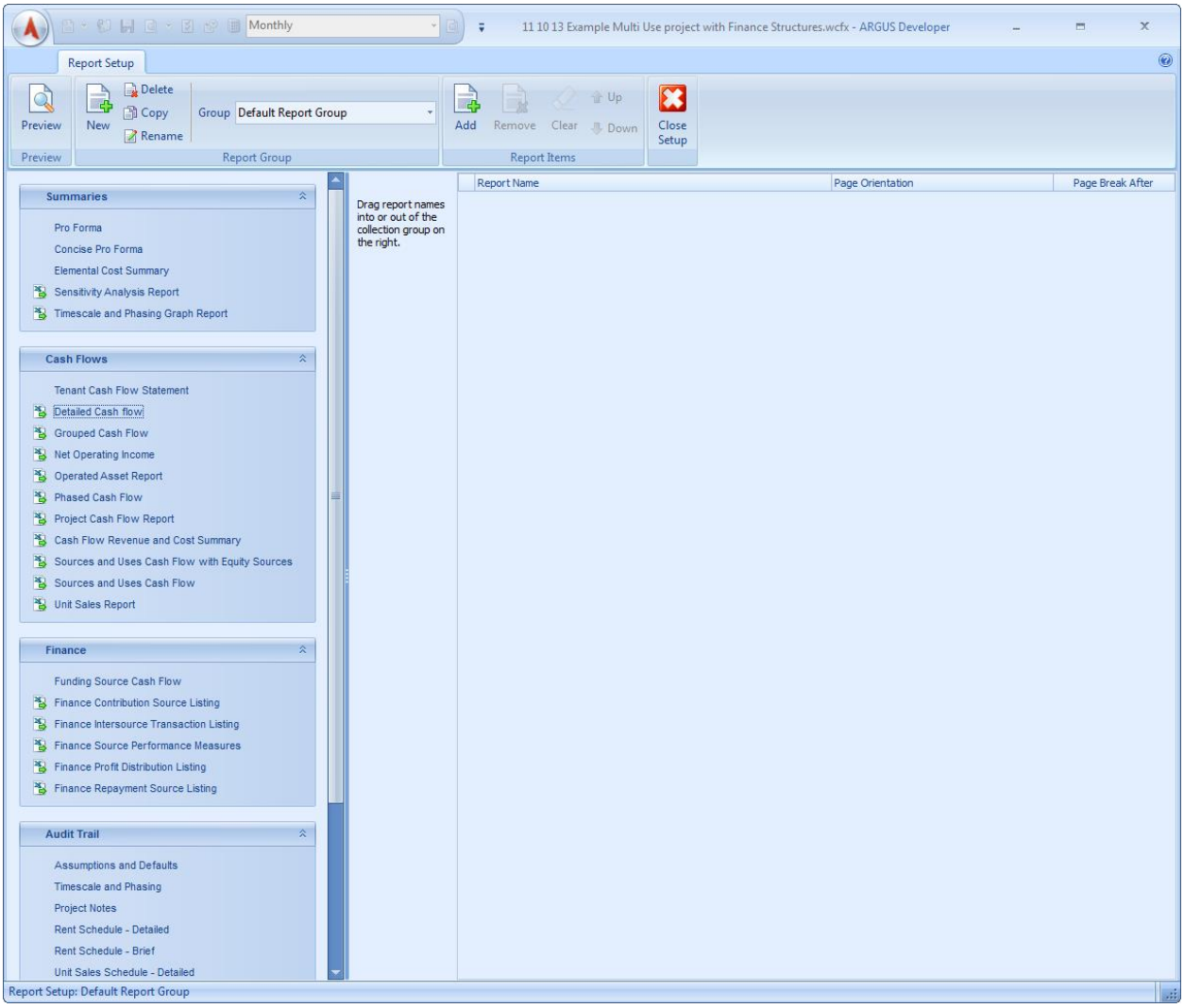

In the left column of the screen, reports are grouped by type:

- Summaries
- Cash Flows
- Finance
- Audit Trail

For convenience, these can be collapsed and expanded the arrow on each group label.

Report Group Setup Commands

The commands in the Report Group Setup screen from left to right across the ribbon:

Preview: View on screen either an individual selected report (you select a report here by clicking on any one from the list of reports), or a Report Group which is selected with the **Group** command on the ribbon.

New: Creates a new, blank Report Group which by default is given the name *Report Group 1*. To view and edit the newly created Report Group, you must select it with the **Group** command on the ribbon.

Delete: Delete the currently selected Report Group, as appears in the Group selection window. You are prompted before deleting a Report Group. Only the Report Group definition is deleted, not the reports themselves.

Copy: Copies the currently selected Report Group. The default name given to the new Report Group is *Copy of* followed by the name of the copied Report Group. To view and edit the new Report Group created by the **Copy** command, you must select it with the **Group** command on the ribbon.

Rename: Allows you to rename the currently selected Report Group, as appears in the Group selection window. This is accomplished with the renaming window as shown following:

Group: This selection window allows you to switch from one Report Group to another, with the new selection becoming the currently active (selected) Report Group. Note that until one or more new Report Groups have been created with the **New** command, there will only be one Report Group available, with a default name of *Default Report Group*.

Add: Creates a copy of the currently selected report in the left panel and places it in the list of reports in the right panel which is the collection of reports that makes up the currently active Report Group. Note that you can accomplish the same action by simply clicking and dragging a report name from the report list into the current Report Group window.

Remove: Removes the currently selected report from the current Report Group window. You are prompted for confirmation before the report is removed. Note that you can accomplish the same action by simply clicking and dragging a report name from the Report Group window to the report list panel at the left.

Clear: Clears all reports included in a Report Group window. You are prompted for confirmation before reports are cleared from the Report Group. At this point, you can once again add reports to the Report Group window.

Up: Moves the currently selected report one position higher in the Report Group definition window. This will affect the order of printing.

Down: Moves the currently selected report one position lower in the Report Group definition window. This will affect the order of printing.

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Close Setup: Returns you to the main Developer workspace.

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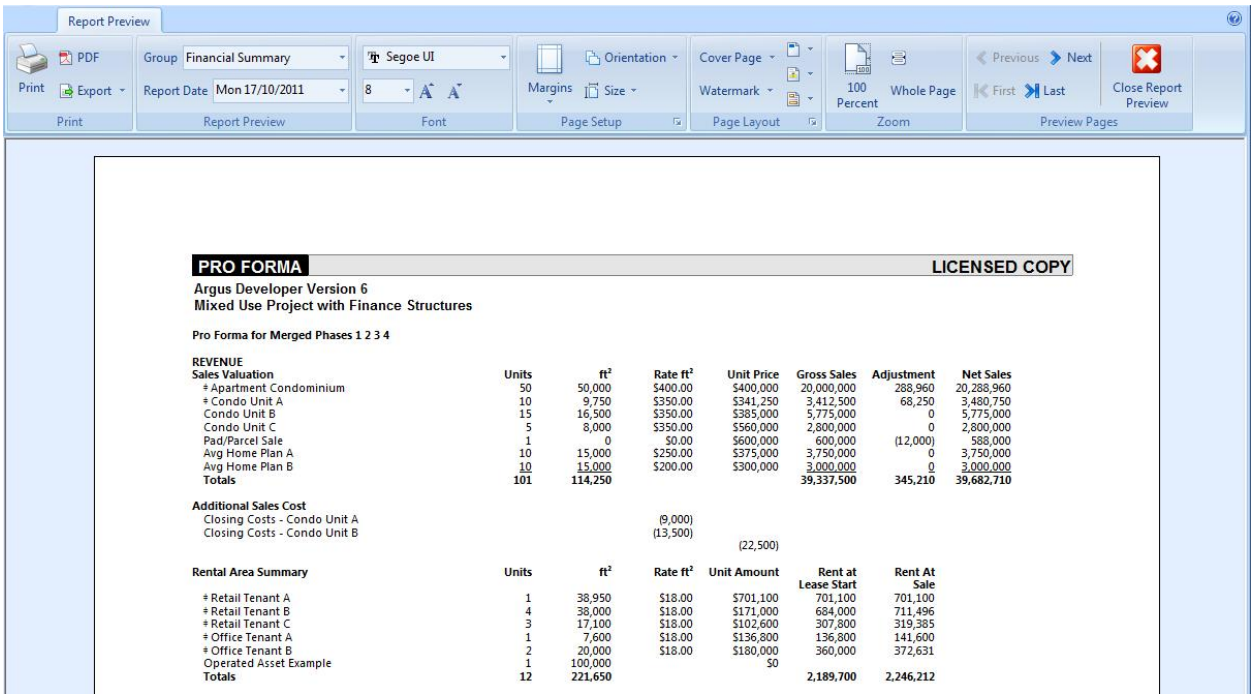
Print Preview

The Print Preview window is accessible from both the **Preview** button in the main Developer workspace, and from the **Preview** button in the Report Group definition window. It provides for detailed control of how reports will be printed.



The **Print Preview Ribbon** Commands

The ribbon commands from left to right in the Report Preview screen are described below:

The Print Group

Print: Opens a selection and setup window to control printer choice, its properties, number of copies and page range.

PDF: Prints a preview to screen in your default PDF reader, from which you can Save to file, and perform the range of functionality that your PDF reader/writer is capable of.

Export: This button provides a range of six options for exporting the report(s) selected, as shown below:

- Export to Excel
- Export to RTF
- Export to HTML
- Save as HTML Document
- Save as PDF Document

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- Save as RTF Document

The first three options generate the report and open the default application associated with each, e.g., Excel, Word for RTF, and Internet Explorer for HTML. The bottom three options simply generate a file in each of the formats (HTML, PDF, and RTF), with a prompt for filename and location.

The Report Preview Group

Group: This selection box allows you to switch from one Report Group to another, with the new selection becoming the currently active (selected) Report Group in the Preview window.

Report Date: Defaults to the current date, but allows for arbitrary date change on report dates.

The Font Group

This group provides standard Windows font controls for type and size. These controls manage the text in the main body of reports.

The Page Setup Group

This group provides standard Windows controls for margins, page orientation, and page size.

Use the button expander arrow at its bottom right to open the following Report Options window where additional reporting options can be configured.

The Page Layout Group

Cover Page: This drop-down list allows placement of the Cover Page as the first or last page of a Report Group, or not printed at all.

Watermark: This drop-down list allows the user to select from several standard watermarks, to use no watermark, or to create a custom watermark definition. Watermarks are generally brief, such as *Do Not Copy* or *Confidential*.

Logo: This drop-down list allows you to choose which parts of the report will be printed with a company logo. Choose from the following options: *All Pages of the Report*, *Cover Page Only*, *No Logo*.

The logo is a custom Bitmap (BMP) or JPEG (JPG) file, and is held in the Common\Reports\Logo sub-folder under the Argus Developer application folder. The default company logo file must be named *Clientlogo.bmp or Clientlogo.jpg.*

The **Alignment** command allows you to choose the position of the logo: to the left, right, or center of the page.

Caveat: This drop-down allows the user to choose whether to create and display a custom caveat. Caveats appear at the bottom of each page.

Header & Footer: Select whether to print a header and/or a footer on each page. The content of headers and footers is controlled in the Headers & Footers tab of the Report Options window.

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The Zoom Group

100 Percent: Select this option to display the report on screen at in its normal size.

Whole Page: Select this option to display a full page of the report at a time.

The Preview Pages Group

Previous: Select this option scroll to the previous page of the report.

Next: Select this option scroll to the next page of the report.

First: Select this option scroll to the first page of the report.

Last: Select this option scroll to the last page of the report.

Close Report Preview: Select this option scroll exit this screen.

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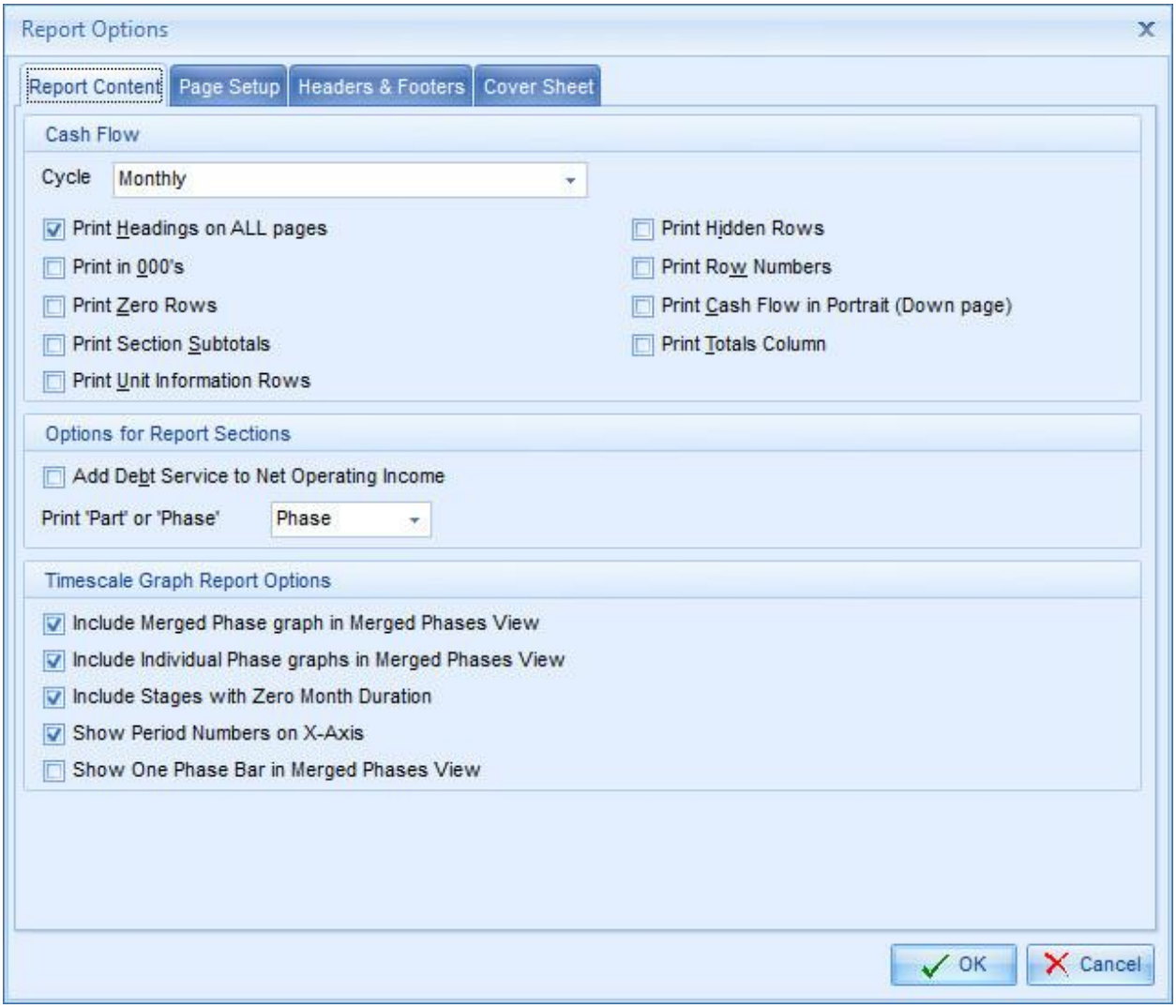
Report Options

The Report Options window can be accessed from the **Preview** button on the ribbon of the main Developer workspace by selecting *Report Setup* in the drop-down list. Alternatively, this window can be opened from the Print Preview screen by clicking the button expander arrow at the bottom right of the Page Setup or Page Layout groups on the ribbon bar.

Report Content



Cash Flow

The options available in the Cash Flow frame are described below:

Cycle: Select *Monthly*, *Quarterly*, *Semi Annual*, *Annual* or a previously defined custom cycle in the drop-down list of the **Cycle** field. The cycle will be initially set by the selection on the main Cash Flow ribbon, but can be overridden here.

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Print Headings on ALL pages: The label chosen for each item in the cash flow will appear in the first column of every page on the Cash Flow report. To reduce the number of printed pages, you could uncheck this option. In this case, headings will appear only on the left-most pages of the report.

Print in 000's: The value printed in each period in the Cash Flow report is rounded to the nearest thousand. All interest amounts and column totals will also be printed in 000's.

Print Zero Rows: When checked any row with a total value of zero will be included in the report. Un-check this option to reduce the number of pages in the report.

Print Section Subtotals: When checked a subtotal will appear for each section in the Cash Flow report.

Print Unit Information Rows: When checked includes sales unit information such as Construction Starts, Sales Starts and Sales Completions on the Cash Flow reports.

Print Hidden Rows: When checked any row that has been hidden will be included in the report. Un-check this option to reduce the number of pages in the report. Hidden rows are rows which are excluded from calculations.

Print Row Numbers: When checked, the line numbers allocated to each row in the Cash Flow will be printed.

Print Cash Flow in Portrait (Down page): When checked the Cash Flow reports will be printed in portrait orientation. By default, the Cash Flow report is printed in landscape orientation. This option may reduce the number of pages in the report for short projects with a large number of items.

Print Totals Column: When checked a totals column will be included for each row in the Cash Flow after the row headings column in the detailed and grouped Cash Flow reports.

Options for Report Sections

These options configure the appearance of certain report sections:

Add Debt Service to Net Operating Income: When unchecked, the net operating income excludes the cost of mortgage interest, fees, and principal repayments. Otherwise, Net Operating Income is reduced by these amounts.

Print 'Part' or 'Phase': This choice controls the text used to describe phases.

See Also

Time Scale and Phasing

Time Scale Graph Report Options

Include Merged Phase Graph in Merged Phases View: Select this option to produce a graph for the overall project when printing from the Merged Phases.

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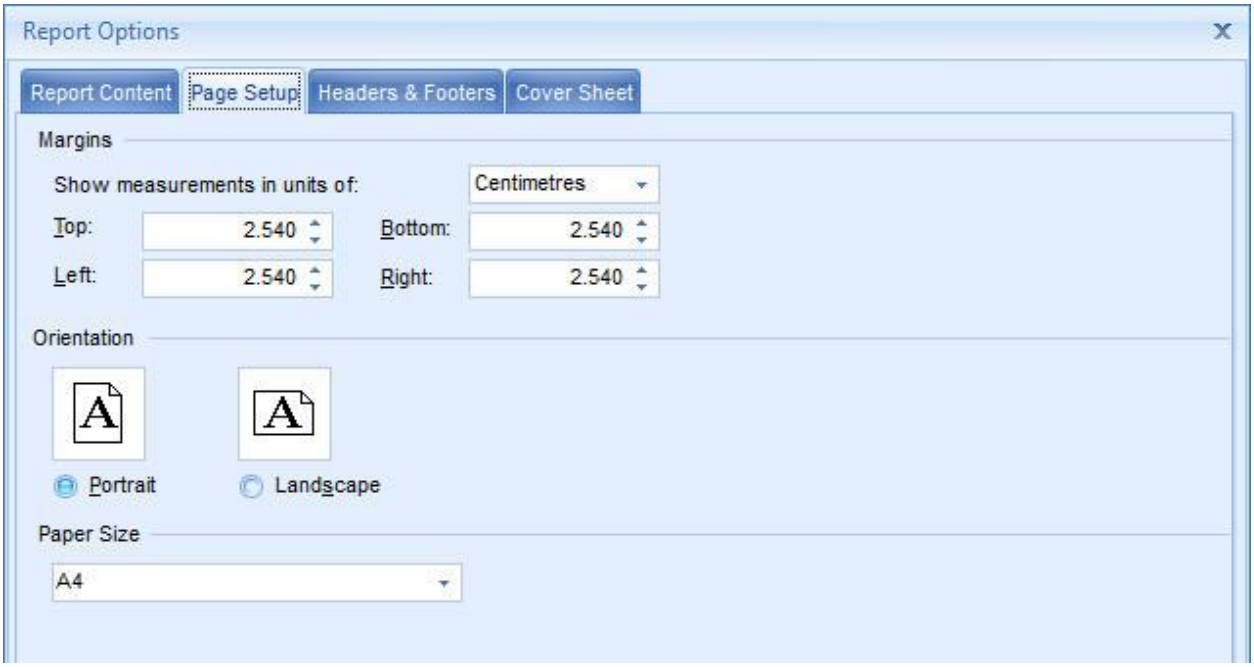
Include Individual Phase Graphs in Merged Phases View: Select this option to produce graphs for each of the individual phases in the report when printing from the Merged Phases.

Include Stages with Zero Month Duration: Un-check this option if you want to hide any stages that have no duration entered in the time scale.

Show Period Numbers on X-Axis: Select this option to move the period numbers from the top of the graph to the bottom.

Show One Phase Bar in Merged Phases View: Select this option to show a single bar for each stage, from the earliest stage start to the latest stage end, on the Merged Phase Graph. When not selected, a bar will be shown for each phase on each stage line on the Merged Phase Graph. This option can result in gaps appearing between the bars drawn for each stage which represent the time between phases.

Page Setup



As shown above, the Page Setup tab provides options for the page margin units and dimensions, orientation of the pages, and paper size.

Headers & Footers

Headers

Print Headers: Select this option to display a header at the top of each reporting page. The header will contain the entry in the **Client Name** field as well as the primary and secondary titles of the project as entered on the Project page of the main Developer workspace.

Client Name: This field allows for entry of custom text to be displayed on the report header.

Footers

Print Footers: Select this option to display a footer at the bottom of each reporting page. The contents of the footer are determined by the options selected below.

Print Page Numbers: Select this option to include page numbers in the report footer.

Print Full File Path and Name: Select this option to include the full file path and name of the project in the report footer.

Print Time of Day: Select this option to include the current time stamp in the report footer.

Cover Sheet

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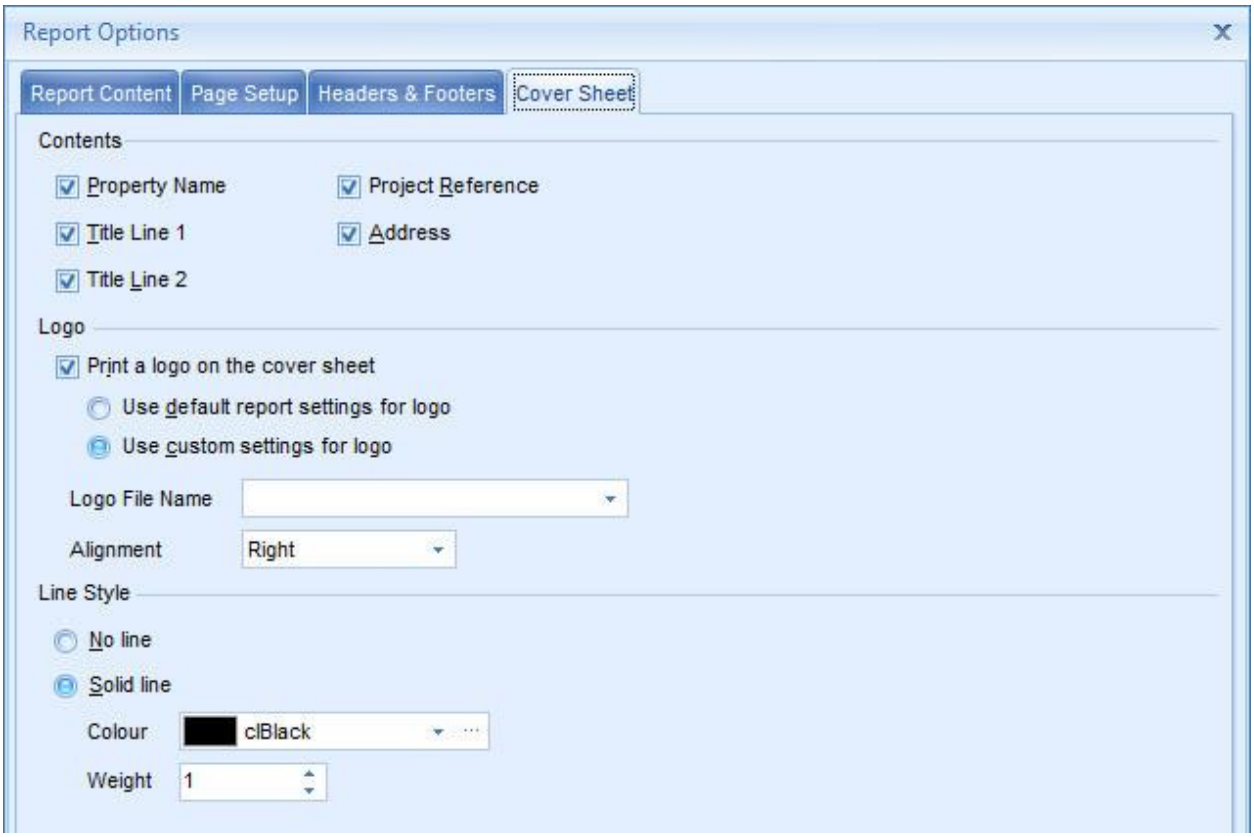

A cover sheet for a report is important. It is the first part of a report that the reader will see. In Developer, you can print a cover sheet which contains high-level project description fields, as well as its address, the report date and the name of the person that prepared it.

You can use the **Cover Sheet** options to change the content and the layout of the cover sheet.

Contents

You can include the property name and project description, as well as a reference number and the address. Select the option against each field to include it on the report's cover sheet.

To separate the property name and description from the address.

Logo

Your company logo, or any other high-quality image, can be printed at the top of the cover sheet. You will probably want to print a larger image on the cover sheet where there is more space, and a smaller one at the top of other pages.

A logo can be any high-quality image in either Bitmap or JPEG format. The JPEG format is higher quality than a Bitmap and will produce a better printed image. All logo files must be stored in the Common\Reports\Logo folder.

To print a logo on the cover sheet

1. Select the **Print a logo on the cover sheet** option

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To use the same logo on the cover sheet and report body
This option allows you to use the same logo image for the cover sheet and the report body pages. When you choose this option, the settings for logo appearance and position are taken from the **Page Layout > Logo** field on the Report Preview screen.

1. Select the **Use default report settings for** **Logo** radio button

To use a different logo on the cover sheet
This option allows you to use a specific logo image on the cover sheet. To use this option, you must have at least one logo file in the Common\Reports\Logo folder. A logo file can be in either Bitmap or a JPEG format.

1. Select the **Use custom settings for** **Logo** radio button
2. In the **Logo File Name** field, choose the cover sheet logo
3. Change how the logo is positioned across the top of the cover sheet from the **Alignment** field

Line Style
When you include the address of the development on the cover sheet, it can be separated from the project description using top and bottom border lines.

To show borders around the address

1. Select the **Solid Line** radio button
2. In the **Color** **field**, choose a color for the borders
3. Change the weight of the border lines by either typing a w**eight** or clicking the spin buttons

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Enhanced Excel Analytics

Excel Integrated Analytics

The Excel template workbook included with ARGUS Developer v6.5 provides a simple way to export one or more Finance Structures from an ARGUS Developer v6.5 file to Excel version 2007 and up. The workbook provides dashboards, data tables, charts, cash flow reports and user-accessible data, formatting, and calculations. You can use the template as-is, or as the foundation for custom reports and analysis, utilizing standard Excel formulas and formatting controls.

Other features of the Workbook include:

- User-defined categories can be assigned to line items and used within each chart and table
- Workbooks may be easily refreshed with updated data from ARGUS Developer
- No macros, Excel Add-ins or other hidden processes of any kind are used, allowing for ease of access and modification by users
- Up to 50 Phases can be downloaded simultaneously any combination of structures within the 50 Phases is allowed. Maximum total project length is 240 months.
- The ARGUS Developer file can have up to 10 Debt and 10 Equity Sources that are used by any or all of the individual finance structures
- Charts are dynamic as to project length and elements being charted you do not have to adjust the charts as to the data and timing that is being shown.
- Each finance structure can be viewed independently, and can be combined into totals with the other finance structure(s) that are exported
- The ability to create your own worksheets or separate workbooks that reference the contents of the template through the use of standard Excel formulas, and links, respectively. Any changes and or additions you make and save to a particular workbook are retained for future sessions. Such changes made to a particular workbook are exclusive to that workbook – they do not affect other Excel Template workbooks or the originating Template itself.
- Ability to maintain multiple versions of the Workbook, simply by doing a **File Save As** within Excel.
- Ability to create and deploy your own Templates (xltx) files within the ARGUS Developer environment, by saving an Excel workbook as an Excel template in the designated Excel templates folder, as described following.

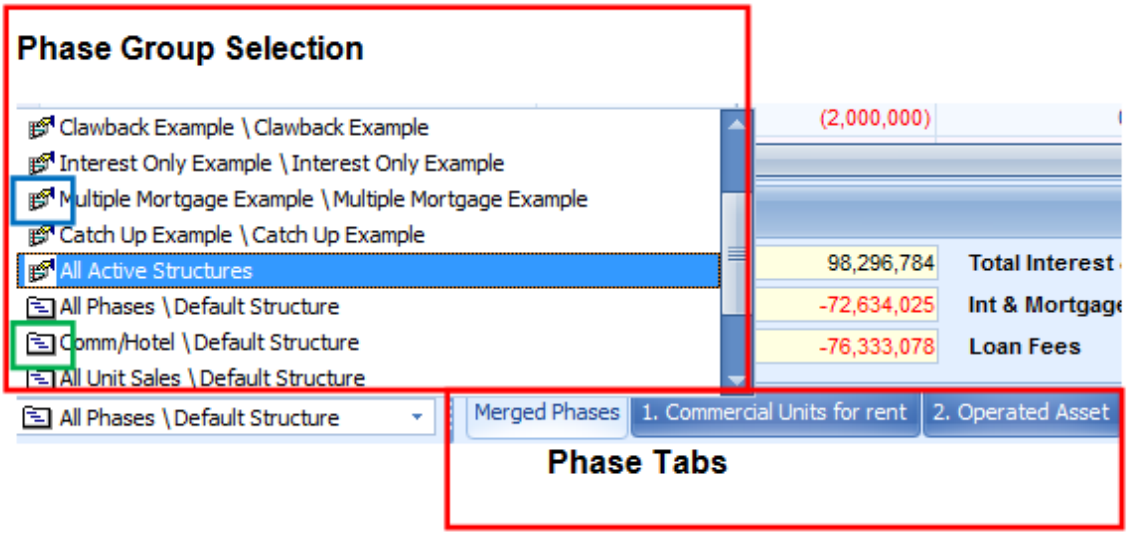
Note: The Excel template included with the product has been designed to only work with ARGUS Developer v6.50 and subsequent versions. Please contact ARGUS Software, if you wish to upgrade from an earlier version. Clients active on maintenance may upgrade to ARGUS Developer 6.5 at no cost.

Selecting a Phase Group for exporting to Excel Analysis Report

Before exporting, the user has to select what data will be included.

In most cases, it is advised to select *All Active Structures* and *Merged Phases*. Following is a more detailed explanation.

When creating a new analysis workbook, or updating an existing analysis, the data exported will be controlled by the selected Phase Group as well as the selected Phase tab. See Finance Structures.



Before making the selection, it should be noted that there are two styles of Phase Groups which have slightly differing effects on the export process to Excel. They are differentiated by their icons:

New Style Phase Group

Old Style Phase Group

The older style phase groups are from legacy versions of ARGUS Developer prior to version 6.0. The Excel Analysis reporting template introduced in Developer version 6.5 makes use of the new style phase group only.

If the user selects an old style phase group and performs a new or updated analysis reporting export, the *FS_Data_Source* worksheet will not be populated. Instead, a *Data_source* tab will be created and populated. Note that none of the other worksheets within the Excel Template reference to the Data Source tab. They only reference the *FS_Data_Source* tab.

Phase Group and Phase tab selection is important when performing the Excel Analysis. Be careful not to confuse which selections are made. In addition, some exports are not allowed.

If you are using one of the newer phase group selections and have multiple finance phases, you must select the Merged Phases tab to be able to create a new or updated analysis report.

The following table provides a summary of Excel export options:

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Phase Group and Phase Tab Selection choices for Excel Analysis Exports				
Old/New Style	**Phase Group Selection**	**Phase Tab Selection**	**Number of Phases in Phase Group**	**Destination Sheet**
Old	All Phases / Default Structure	Merged	> 1	Data_Source
		Single	1	Data_Source
Old	Project Phase Group/Default Structure	Merged	> 1	Data_Source
		Single	1	Data_Source
Old	All Infrastructure Phases	Merged	> 1	Data_Source
		Single	1	Data_Source
New	Finance Phase Group/User Defined Structure	Single	1	FS_Data_Source
		Single	> 1	Export Not Allowed
		Merged	> 1	FS_Data_Source
New	All Active Structures	Single	1	Active Structures not listed and Export Not Allowed
		Single	> 1	Export Not Allowed
		Merged	> 1	FS_Data_Source

Whatever finance structures are included in the Active list, you must still focus on the Merged Phases tab as discussed above in order for the relevant finance structures to be exported. The only exception to this is a finance structure that contains only one phase in this case, you would only need to ensure that the correct Finance Phase Group (Phase 1) / Finance Structure is selected – in essence, a single phase.

Exporting into an Excel Template (xltx) file

Select the Finance Structure(s) you wish to export to the Excel template.

Ensure that the Excel Template Workbook file is not open in Excel. Excel may or may not be open prior to performing a download – if Excel is not running; ARGUS Developer will open it as part of the download process.

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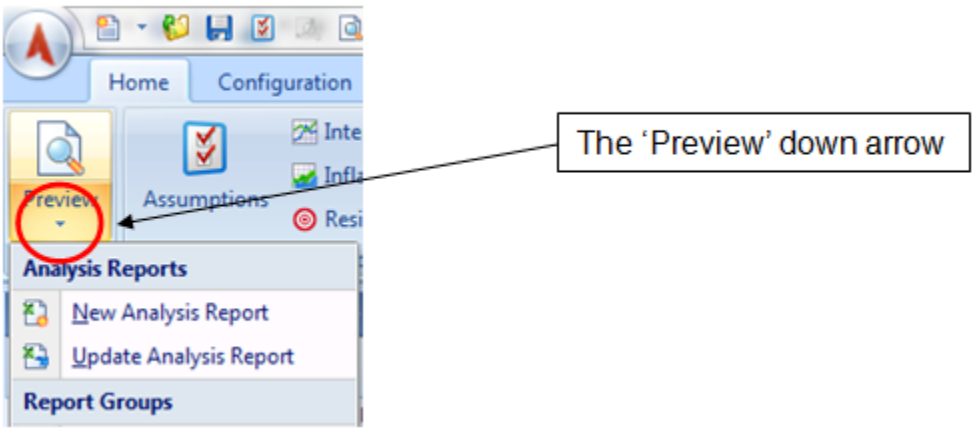
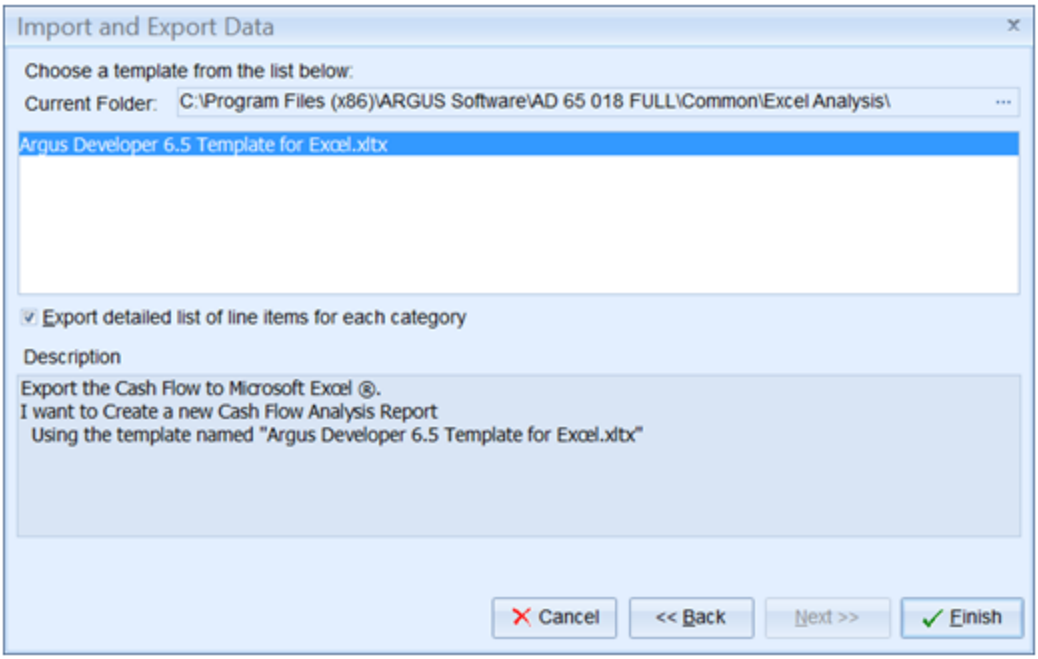
Note: it is generally better not to have other large Excel files open when the download is running, depending upon the processor speed/memory available on your computer.

Click on the **Preview** button to display reporting options and select the *New Analysis Report*.



The *New Analysis Report* option will bring up the following Import and Export Data window that lists all the available analysis templates:



Note: Your ARGUS Developer v6.50 installation is supplied with the default analysis named: ARGUS Developer 6.5 Template for Excel.xltx. In the following (default) folder (or check if installed on a server): C:\Program Files (x86)\ARGUS Software\ARGUS Developer\Common\Excel Analysis

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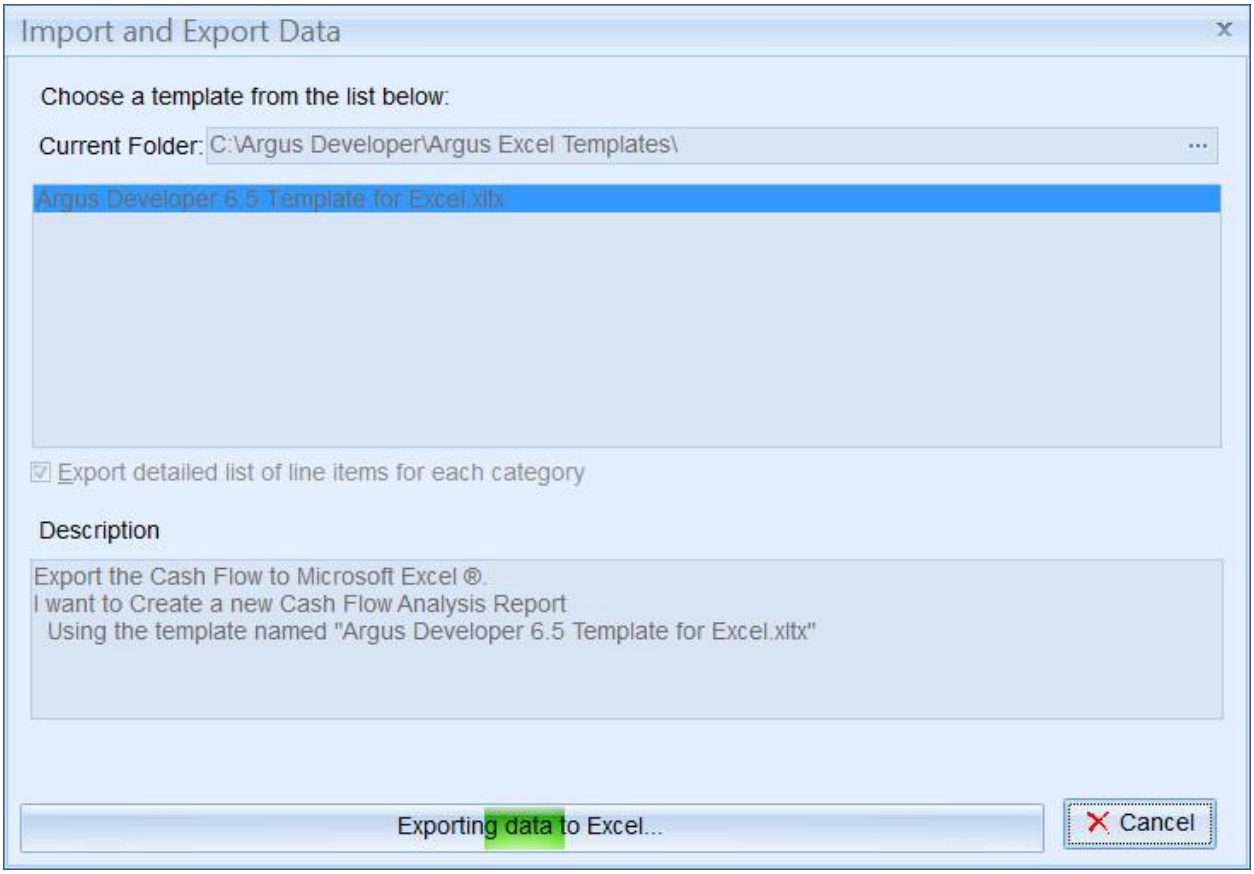
- Ensure that the check box in the above screen for *Export detailed list of line items for each category* is selected (it will remain selected in future sessions once you check it the first time);
- If you create modified versions of the standard Excel template above, you can save them as a template within Excel (it must have an xltx file name extension), and save them to the current folder location as displayed in the window in your own installation of ARGUS Developer;
- Once you select a template file from the above for downloading and the downloading process is complete, the resulting file is a standard Excel (xlsx) file, with a '1' appended to the file name. The original template file is not altered.
- Once you have clicked the **Finish** button, Developer will display the following screen until the download process is complete:



It is recommended that you do not disturb this download process, which should take a few minutes or less on most computers. In particular, do not do any activity with Excel until the process is complete, as ARGUS Developer requires control of Excel during the download process.

During the download process, the following actions are performed under ARGUS Developer's control, in the following order:

- The selected template file is opened by Excel and an exact copy of it is made as a regular Excel workbook file, with the same name as the selected template plus a '1' appended, and an 'xlsx' extension.

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- The 'FS_Data_Source' worksheet within the selected template is cleared of all prior content, and updated with the data that is being exported from the current working ARGUS Developer v6.5 file; (note that the 'FS_Data_Source' worksheet is normally *Hidden* as it contains only the raw, un-formatted data from the export).
- A full calculation is performed on the file – the equivalent of manually pressing the F9 (Recalculate) button in Excel.
- The status of recalculation of the Excel file is set to *Automatic*. You can change this to *Manual* if you wish – it generally speeds up operations in Excel, but remember to force a calculation with **F9** when you make a change to the Excel file.
- The far left tab (Worksheet) of the Workbook is opened. The default far left Worksheet is the Finance tab, which is shown following.

Special notes about the export process:

The resulting workbook has the same name as the selected Template plus a '1' appended, and an 'xlsx' extension, making it a standard, non-macro enabled Excel Workbook.

The resulting workbook is not saved; it is up to the user to save the file to a location of choice.

Once the process described above is complete, ARGUS Developer has no further control over the workbook, and it does not require the continued presence or operation of ARGUS Developer.

Once the downloading to Excel process is complete, the above screen will disappear and you will be returned to ARGUS Developer's workspace area.

At this point, you can switch to the Excel Workbook, which in its default configuration be focused on the 'Finance' tab, will look something like the following, depending upon the actual ARGUS Developer data set:

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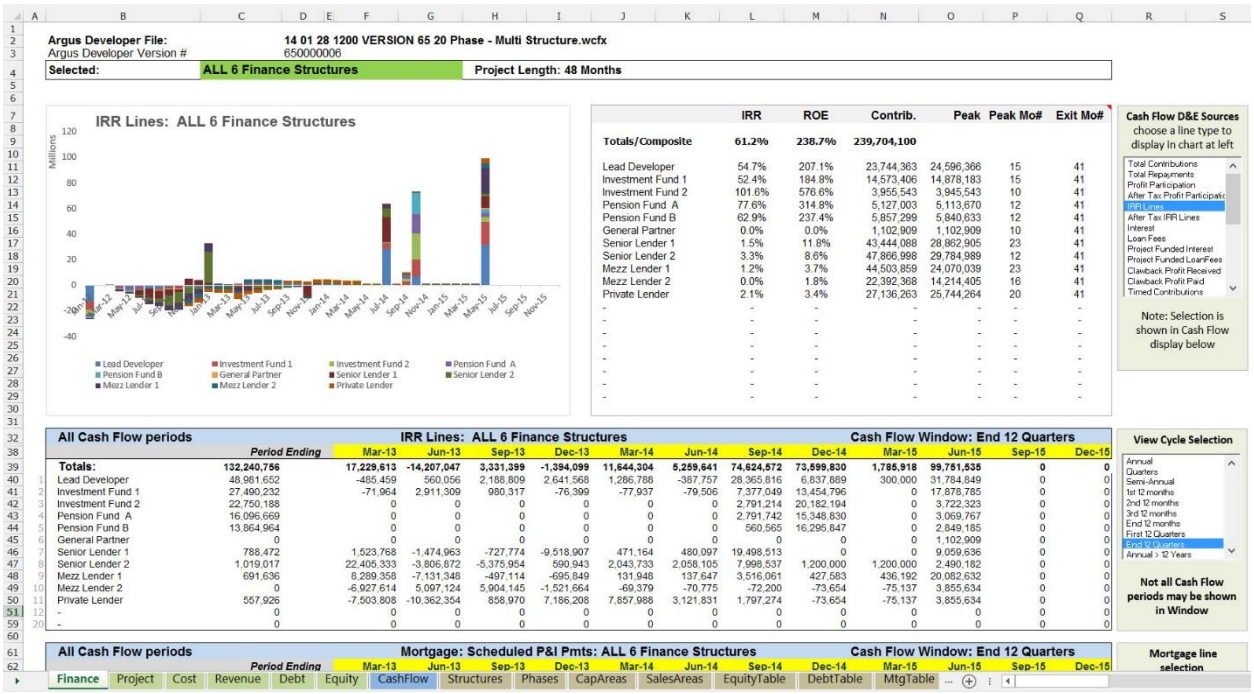

You can save the workbook file to any location/name you wish - see recommendation following. Such renamed files may be used as a target for future updating.

The export process is designed to work with Excel files that are based on the layout of the default Excel template file that is supplied with ARGUS Developer v6.5.

To facilitate ease of access of Template files (default and newly created) with downloaded content from ARGUS Developer v6.5, take note of the setting for 'User Data'. See Folder Locations.

How to Download into an existing Excel (.xlsx) Workbook:

Select the Finance Structure(s) and Phase(s) you wish to export to the existing Excel workbook.

Ensure that the Excel Workbook file is not open in Excel. Excel may or may not be open prior to performing a download – if Excel is not running; ARGUS Developer will open it as part of the download process.

Note: it is generally better not to have other large Excel files open when the download is running, depending upon the processor speed/memory available on your computer.

Click on the **Preview** button to display reporting options and select *Update Analysis Report*.

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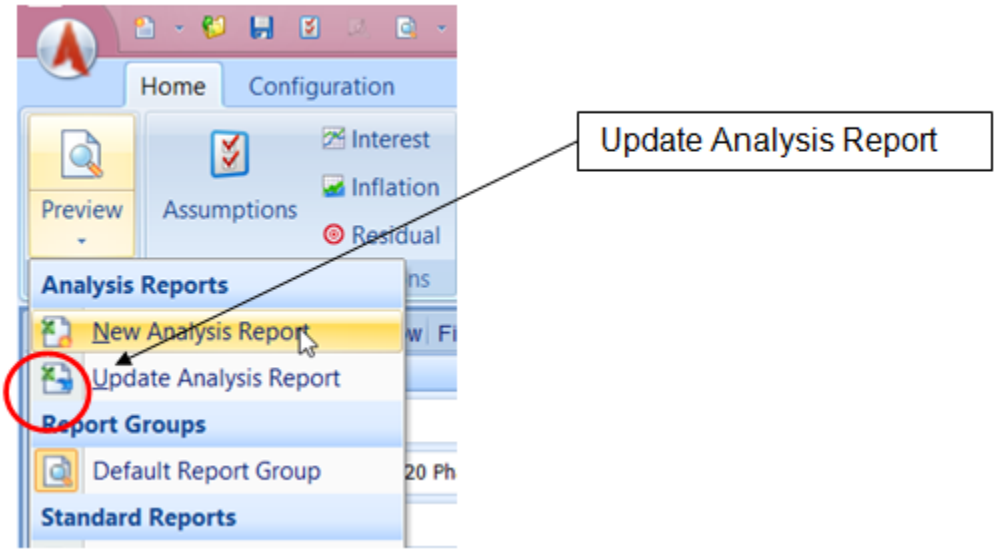
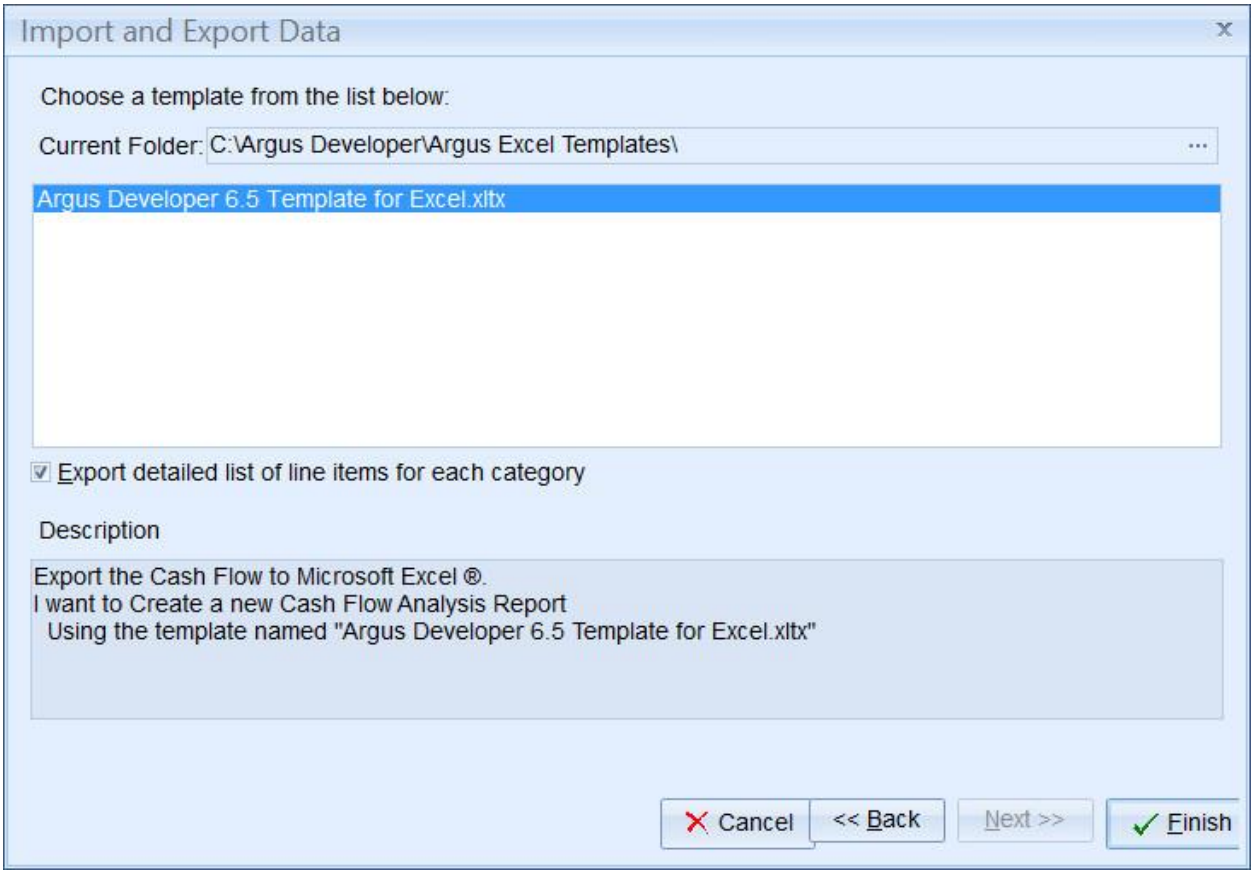


The Import & Export window will list the name of the workbooks in the User Data folder. Select the relevant file and click **Finish** to start the update process.

Initially, you will not have any template-based Excel workbooks (xlsx format) available, until you have downloaded into a template file (xltx format) and saved it as a regular (xlsx format) to a location of your choice.



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Once the downloading to Excel process is complete, you will be returned to ARGUS Developer's workspace area and be able to switch to the Excel workbook.

Overview of contents of the Excel Template Workbook

The Excel Template workbook provides both summarized and detailed information on the downloaded ARGUS Developer file from a variety of perspectives. A listing of the key worksheets and a brief description of each is as follows:

Finance	High-level overview of current Argus Developer file Contains main selector for Finance Structure(s) to view throughout workbook Contains Charts of major Project and Finance elements Dashboards of key KPI's and Cash Flow elements
Project	Total Project overview from a variety of perspectives
Cost	Setup of user-defined Cost Categories used in Workbook
Revenue	Setup of user-defined Revenue Categories used in Workbook
Debt	Selection of Debt elements (eg. Contributions, Interest paid)
Equity	Selection of Equity elements (eg. Contributions, Profit)
CashFlow	Synopsis of Project, Cost, Revenue and Equity based on settings above
Structures	Data Table: all Finance Structures in Workbook (max 50)
Phases	Data Table: all Phases in Workbook (max 50)
CapAreas	Data Table: all Cap Area records in Workbook (max 250)
SalesAreas	Data Table: all Sales Area records in Workbook (max 250)
EquityTable	Data Table: all instances of Equity Activity in each Structure (max 100)
DebtTable	Data Table: all instances of Debt Activity in each Structure (max 100)
MtgTable	Data Table: all Mortgages in Workbook (max 50)

The balance of worksheets in the workbook contain the data and extraction calculations that facilitate the presentation of worksheets noted above and are hidden to protect the integrity of the calculations. They can be viewed (and edited, but this is not recommended) by right-clicking on any worksheet tab, then select the worksheet you wish to view from the popup menu that appears.

Some operational guidelines when using the template:

- Excel Print Areas have been defined for the worksheets listed above, except for the table-style worksheets.
- Pop-up information has been embedded into many headers throughout the workbook, that operate much like tool tips in ARGUS Developer, except that you must click on the header first. These are included to expand on and clarify the header text.

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- Data Group buttons have been used throughout the Excel workbook to alternately hide/un-hide rows and columns. Their presence is apparent when you see small numbered buttons or lines just to the top of and left of the column and row letters and numbers. This provides for an easy way to expand and contract the visible area of the worksheets depending upon the size of the ARGUS Developer file that has been downloaded. You can change the rows and columns that are included in the Data Groups with standard Excel commands (e.g., Data-Group-Group-Hide or Unhide).
- Some worksheets have areas which do not display or allow edits to selected formulas. This has been done to prevent accidental erasure or unintended edits. However, these protected areas are not password protected, so it is a relatively simple matter to unprotect and make visible and editable such areas. Editing, while possible, is not recommended without a thorough understanding of how the Excel template is structured. See Excel documentation regarding cell and worksheet protection.

The Finance Worksheet:

This is the main focal point of the Excel template, as it provides a number of tables, charts, and a dashboard-style "window" for rapid analysis of your Developer file.

By default, the finance worksheet is the point of entry into the Excel template when an export is run. It contains a number of selectors to control what data appears in charts and in the cash flow Dashboard Windows.

The following shows a partial view (roughly the top third) of the finance worksheet, populated with an example of a 6 Structure ARGUS Developer project:

You can control the content of the charts and tables with the following highlighted selectors, starting at the top:

All Finance Structures:

Click in the green area to reveal a small down-arrow button to display a selection of all finance structures available or **ALL**

Cash Flow D &E Sources:

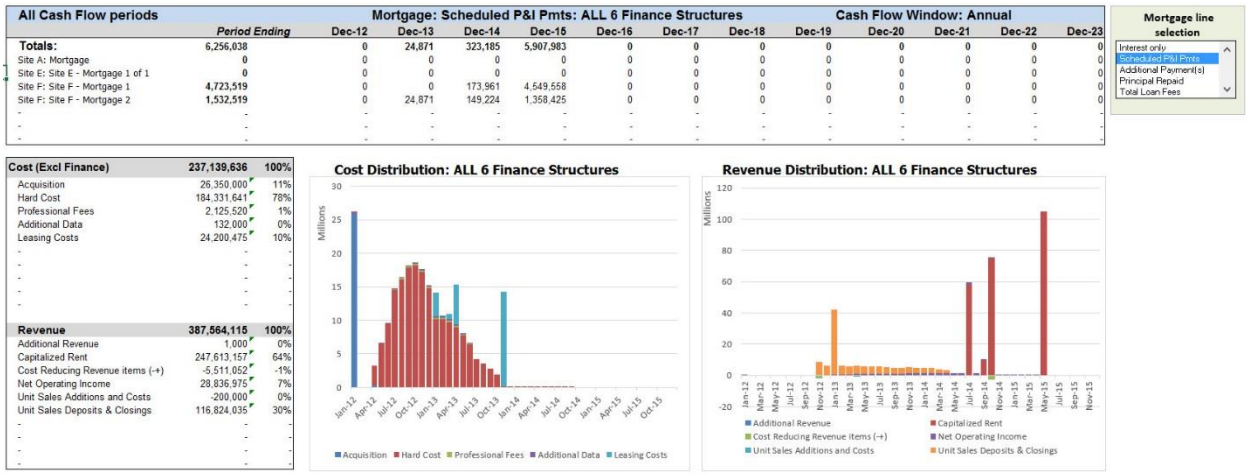
Choose from a large variety of Debt & Equity Cash Flow line items that will be used in the chart at left and in the Cash Flow window

View Cycle Selection:

Choose from the available options to display in the Cash Flow window. If less than all cash flow periods from your project are shown, which is possible depending upon the selection made, text in red will appear at the top of the Cash Flow window indicating this.

Note: The workbook must be recalculated for your selection(s) to take effect. Click **Calculate Now** button (Configuration ribbon bar) or **F9**.

The following screen shows the middle section of the Finance Worksheet:



This section provides a Cash Flow Dashboard window for Mortgage information, and some key information and charts related to Cost and Revenue Distribution (the content of these are set in the Cost and Revenue worksheets).

The selection of what mortgage information to display is made in the highlighted selector entitled Mortgage line selection, while the View Cycle is set as per the **View Cycle** Selection.

The following screen shows the final section of the Finance Worksheet:

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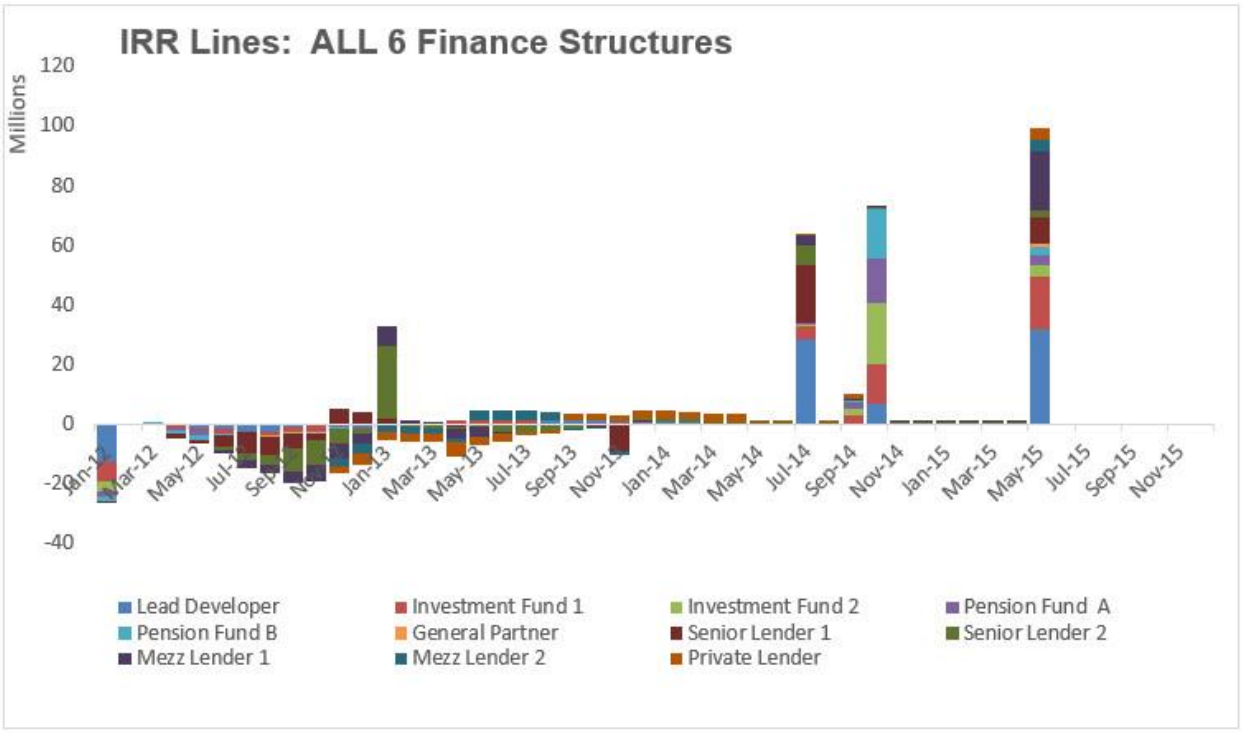
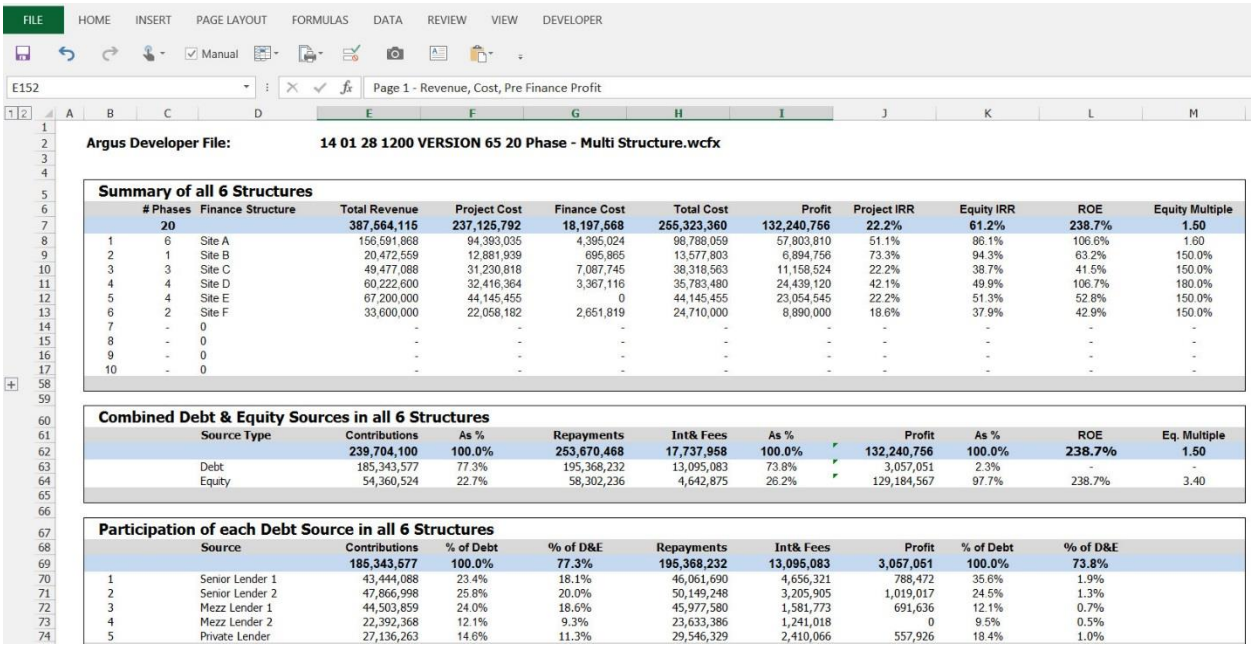


This section does not contain any view selectors; however, the content of the Equity and Debt tables and Charts are controlled by selections you make in the Equity and Debt Worksheets.

The Project Worksheet:

The Project worksheet provides a high-level summary of KPIs for all Finance Structures currently downloaded in the workbook. The following is an example, populated with a multi-structure project:



FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER

E152 | Page 1 - Revenue, Cost, Pre Finance Profit

Argus Developer File: 14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx

Summary of all 6 Structures

	# Phases	Finance Structure	Total Revenue	Project Cost	Finance Cost	Total Cost	Profit	Project IRR	Equity IRR	ROE	Equity Multiple
	20		387,564,115	237,125,792	18,197,568	255,323,360	132,240,756	22.2%	61.2%	238.7%	1.50
1	6	Site A	156,591,868	94,393,035	4,395,024	98,788,059	57,803,810	51.1%	86.1%	106.6%	1.60
2	1	Site B	20,472,559	12,881,939	695,865	13,577,803	6,894,756	73.3%	94.3%	63.2%	150.0%
3	3	Site C	49,477,088	31,230,818	7,087,745	38,318,563	11,158,524	22.2%	38.7%	41.5%	150.0%
4	4	Site D	60,222,600	32,416,364	3,367,116	35,783,480	24,439,120	42.1%	49.9%	106.7%	180.0%
5	4	Site E	67,200,000	44,145,455	0	44,145,455	23,054,545	22.2%	51.3%	52.8%	150.0%
6	2	Site F	33,600,000	22,058,182	2,651,819	24,710,000	8,890,000	18.6%	37.9%	42.9%	150.0%
7	-	0	-	-	-	-	-	-	-	-	-
8	-	0	-	-	-	-	-	-	-	-	-
9	-	0	-	-	-	-	-	-	-	-	-
10	-	0	-	-	-	-	-	-	-	-	-

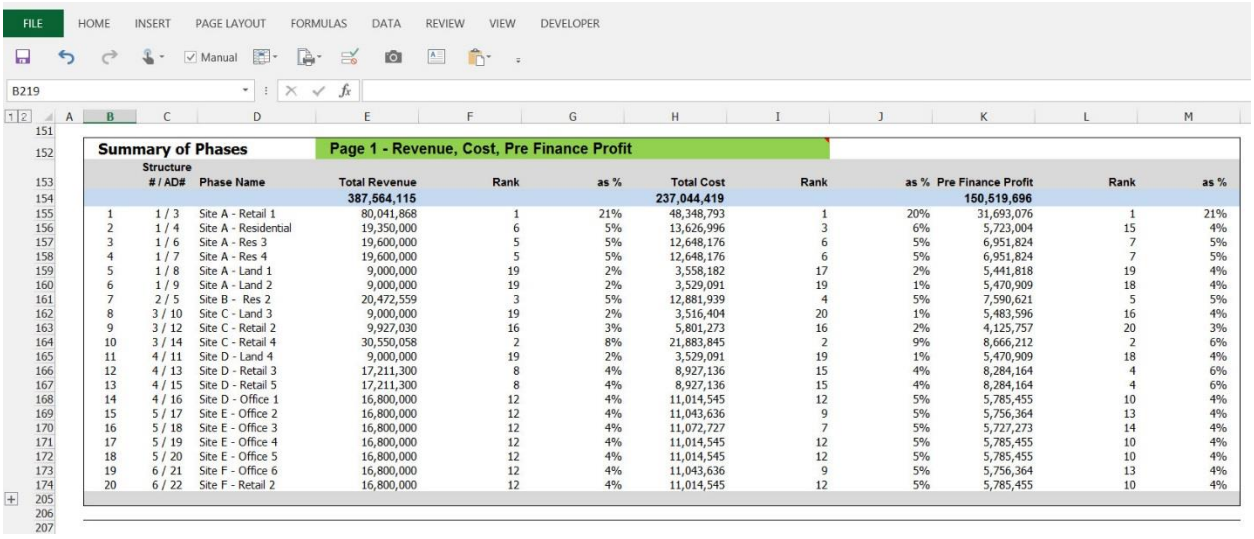
Combined Debt & Equity Sources in all 6 Structures

Source Type	Contributions	As %	Repayments	Int& Fees	As %	Profit	As %	ROE	Eq. Multiple
	239,704,100	100.0%	253,670,468	17,737,958	100.0%	132,240,756	100.0%	238.7%	1.50
Debt	185,343,577	77.3%	195,368,232	13,095,083	73.8%	3,057,051	2.3%	-	-
Equity	54,360,524	22.7%	58,302,236	4,642,875	26.2%	129,184,567	97.7%	238.7%	3.40

Participation of each Debt Source in all 6 Structures

	Source	Contributions	% of Debt	% of D&E	Repayments	Int& Fees	Profit	% of Debt	% of D&E
		185,343,577	100.0%	77.3%	195,368,232	13,095,083	3,057,051	100.0%	73.8%
1	Senior Lender 1	43,444,088	23.4%	18.1%	46,061,690	4,656,321	788,472	35.6%	1.9%
2	Senior Lender 2	47,866,998	25.8%	20.0%	50,149,248	3,205,905	1,019,017	24.5%	1.3%
3	Mezz Lender 1	44,503,859	24.0%	18.6%	45,977,580	1,581,773	691,636	12.1%	0.7%
4	Mezz Lender 2	22,392,368	12.1%	9.3%	23,633,386	1,241,018	0	9.5%	0.5%
5	Private Lender	27,136,263	14.6%	11.3%	29,546,329	2,410,066	557,926	18.4%	1.0%

In the screen segment above, there are no selectors, however, on the following segment representing the lower half of the Project Worksheet, there is a choice of three "pages" of information about the phases in the Project:



Summary of Phases			Page 1 - Revenue, Cost, Pre Finance Profit								
	Structure # / AD#	Phase Name	Total Revenue	Rank	as %	Total Cost	Rank	as %	Pre Finance Profit	Rank	as %
			387,564,115			237,044,419			150,519,696		
1	1 / 3	Site A - Retail 1	80,041,868	1	21%	48,348,793	1	20%	31,693,076	1	21%
2	1 / 4	Site A - Residential	19,350,000	6	5%	13,626,996	3	6%	5,723,004	15	4%
3	1 / 6	Site A - Res 3	19,600,000	5	5%	12,648,176	6	5%	6,951,824	7	5%
4	1 / 7	Site A - Res 4	19,600,000	5	5%	12,648,176	6	5%	6,951,824	7	5%
5	1 / 8	Site A - Land 1	9,000,000	19	2%	3,558,182	17	2%	5,441,818	19	4%
6	1 / 9	Site A - Land 2	9,000,000	19	2%	3,529,091	19	1%	5,470,909	18	4%
7	2 / 5	Site B - Res 2	20,472,559	3	5%	12,881,939	4	5%	7,590,621	5	5%
8	3 / 10	Site C - Land 3	9,000,000	19	2%	3,516,404	20	1%	5,483,596	16	4%
9	3 / 12	Site C - Retail 2	9,927,030	16	3%	5,801,273	16	2%	4,125,757	20	3%
10	3 / 14	Site C - Retail 4	30,550,058	2	8%	21,883,845	2	9%	8,666,212	2	6%
11	4 / 11	Site D - Land 4	9,000,000	19	2%	3,529,091	19	1%	5,470,909	18	4%
12	4 / 13	Site D - Retail 3	17,211,300	8	4%	8,927,136	15	4%	8,284,164	4	6%
13	4 / 15	Site D - Retail 5	17,211,300	8	4%	8,927,136	15	4%	8,284,164	4	6%
14	4 / 16	Site D - Office 1	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
15	5 / 17	Site E - Office 2	16,800,000	12	4%	11,043,636	9	5%	5,756,364	13	4%
16	5 / 18	Site E - Office 3	16,800,000	12	4%	11,072,727	7	5%	5,727,273	14	4%
17	5 / 19	Site E - Office 4	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
18	5 / 20	Site E - Office 5	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
19	6 / 21	Site F - Office 6	16,800,000	12	4%	11,043,636	9	5%	5,756,364	13	4%
20	6 / 22	Site F - Retail 2	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%

The highlighted selector box for the Summary of Phases provides for a choice of:

- Page 1 – Revenue, Cost, Pre Finance Profit
- Page 2 – Revenue Components
- Page 3 – Unit Areas, Ratios and Counts

The Cost & Revenue Worksheets

In the Cost and Revenue Worksheets you can define your own Cost and Revenue Groups that will be used in charts and cash flows throughout the rest of the workbook.

Since the design and operation of each workbook is the same (except that there are fewer Revenue items), this section covers both cost and revenue worksheets. The example shown here is for the cost worksheet, but the same comments apply to each.

The top area of the Cost Workbook is shown below:

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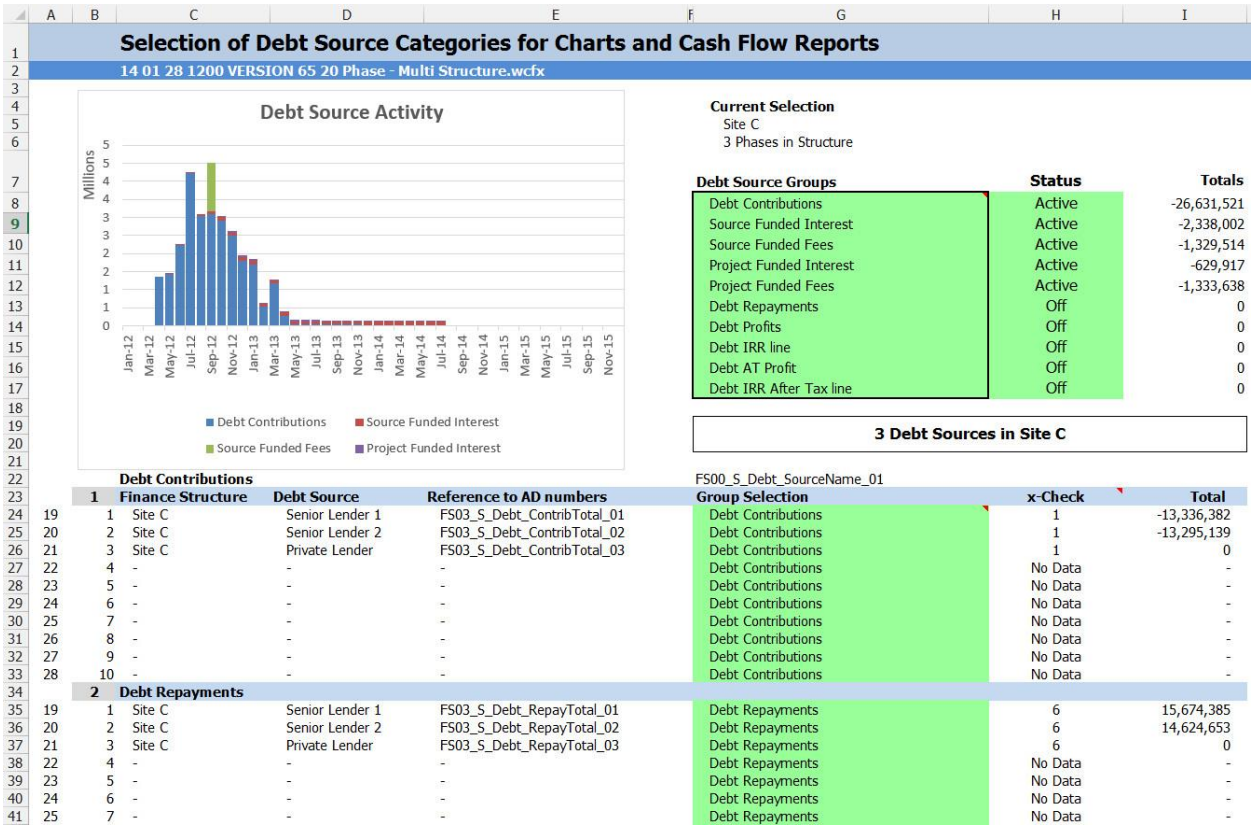

Selection of Debt Source Categories for Charts and Cash Flow Reports

14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx

Debt Source Activity

Millions

Debt Contributions | Source Funded Interest | Source Funded Fees | Project Funded Interest

Current Selection
Site C
3 Phases in Structure

Debt Source Groups	Status	Totals
Debt Contributions	Active	-26,631,521
Source Funded Interest	Active	-2,338,002
Source Funded Fees	Active	-1,329,514
Project Funded Interest	Active	-629,917
Project Funded Fees	Active	-1,333,638
Debt Repayments	Off	0
Debt Profits	Off	0
Debt IRR line	Off	0
Debt AT Profit	Off	0
Debt IRR After Tax line	Off	0

3 Debt Sources in Site C

Debt Contributions

FS00_S_Debt_SourceName_01

	1	Finance Structure	Debt Source	Reference to AD numbers	Group Selection	x-Check	Total
19	1	Site C	Senior Lender 1	FS03_S_Debt_ContribTotal_01	Debt Contributions	1	-13,336,382
20	2	Site C	Senior Lender 2	FS03_S_Debt_ContribTotal_02	Debt Contributions	1	-13,295,139
21	3	Site C	Private Lender	FS03_S_Debt_ContribTotal_03	Debt Contributions	1	0
22	4	-	-	-	Debt Contributions	No Data	-
23	5	-	-	-	Debt Contributions	No Data	-
24	6	-	-	-	Debt Contributions	No Data	-
25	7	-	-	-	Debt Contributions	No Data	-
26	8	-	-	-	Debt Contributions	No Data	-
27	9	-	-	-	Debt Contributions	No Data	-
28	10	-	-	-	Debt Contributions	No Data	-
34	2	**Debt Repayments**					
35	1	Site C	Senior Lender 1	FS03_S_Debt_RepayTotal_01	Debt Repayments	6	15,674,385
36	2	Site C	Senior Lender 2	FS03_S_Debt_RepayTotal_02	Debt Repayments	6	14,624,653
37	3	Site C	Private Lender	FS03_S_Debt_RepayTotal_03	Debt Repayments	6	0
38	4	-	-	-	Debt Repayments	No Data	-
39	5	-	-	-	Debt Repayments	No Data	-
40	6	-	-	-	Debt Repayments	No Data	-
41	7	-	-	-	Debt Repayments	No Data	-

The areas with a green background are for user input and selection, as described below.

The following describes the highlighted areas of the above screen:

Cost Groups:

You can create up to ten cost groups simply by typing the names (each must be unique) you wish to use for cost group categories in the charts and Cash Flows in this workbook. The cost group names you enter then become the list of valid selections in the Group Selection list area highlighted above. When you change or delete one or more names in the Cost Group list, you must ensure that the cost items listed under the Group Selection list are re-selected to reflect the new Cost Group item(s) – this is not an automatic process, they must be re-selected manually.

Under the Acquisition heading:

This list, which scrolls down, shows every available cost category cash flow item within the Project definition area of Developer, including all items that are not explicitly part of the Developer Definition screen. It does not include finance costs, which are dealt with in the Finance worksheet.

Custom Category Label:

You can type in how you want the labels under the Acquisition heading to appear in charts and cash flows within the workbook.

Group Selection:

When you click on a Group Selection item, a small down arrow button appears that will show a list of the items in the Cost Groups list above. Your selection here determines which item(s) will be included in any particular Cost Group. Every Group Selection item must have a selection made based on the

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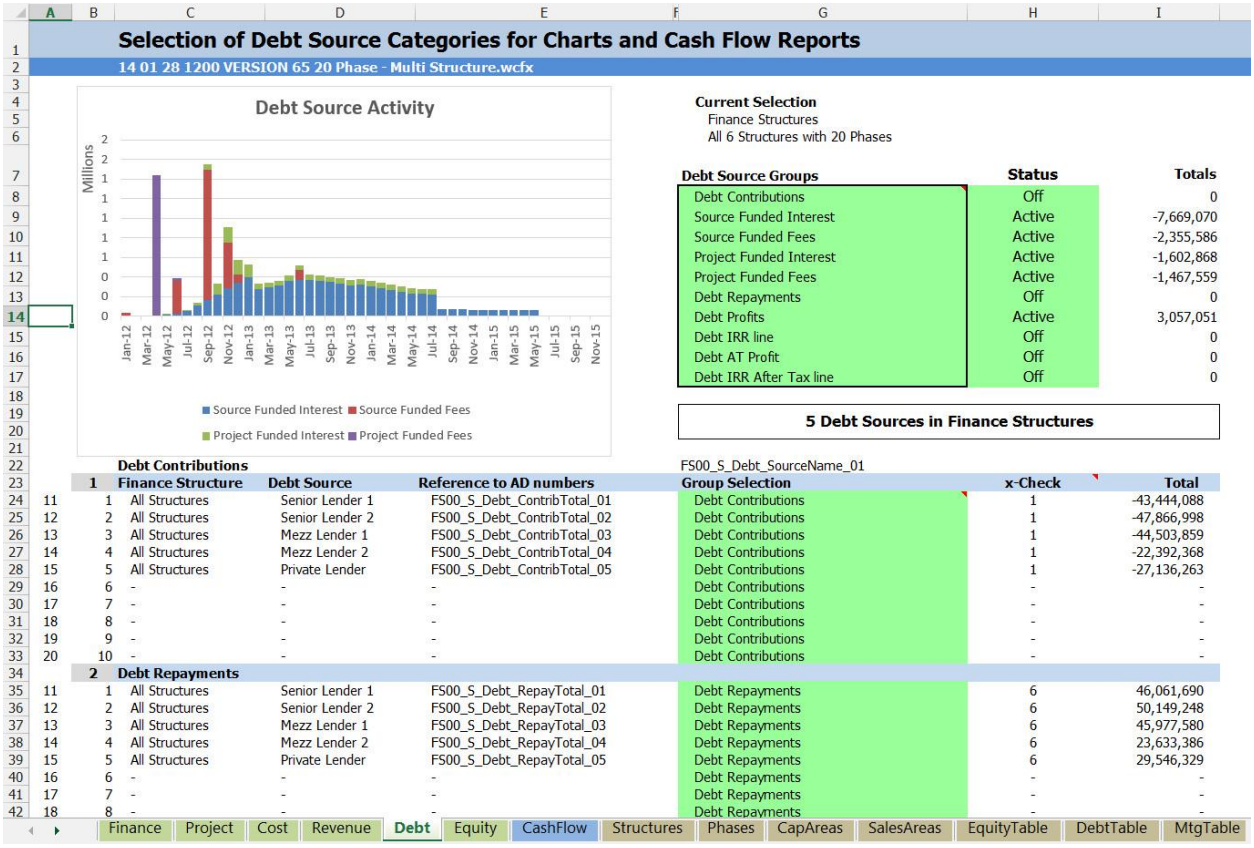
contents of the current Cost Group list. **Important:** as previously noted, when you change or delete one or more names in the Cost Group list, you must ensure that the cost items listed under the Group Selection list are re-selected to reflect the new Cost Group item(s) - they must be re-selected manually, this is not an automatic process.

The Debt and Equity Worksheets

In the Debt and Equity Worksheets you can create your own Debt and Equity Groups that will be used in the appropriate charts and cash flows throughout the rest of the workbook.

Since the design and operation of each of these worksheets is the same, this section covers both Debt and Equity worksheets. The example shown here is for the Debt worksheet, but the same comments apply to each.

The top area of the Debt Worksheet is shown below:



The areas with a green background are for user input and selection.

Debt Source Groups:

You can define the description of the 10 Debt Source Groups that are available simply by typing the names (each must be unique) you wish to use for Debt Source Group categories in the Charts and Cash Flows in this Workbook. The Debt Source Group names you enter then become the list of valid selections in the Group Selection list area highlighted above. When you change or delete one or more names in the Debt Source Group list, you must ensure that the Debt Source items listed under the Group Selection list are re-selected to reflect the new Debt Source Group item(s) - they must be re-selected manually.

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Status:
For each Debt Source Group, each item can toggle between **Active** or **Off**. If a Group is **Active**, then it will be included in Charts and Cash Flows that use this section, throughout the rest of the workbook.

Group Selection:
When you click on a **Debt Group Selection** item, a small down arrow button appears that will display the list of the items defined in the Debt Source Groups. The selection determines which item(s) will be included in any particular Debt Source Group. Every **Debt Group Selection** item must have a selection made based on the contents of the current Debt Source Group list. **Important:** as noted previously, when you change or delete one or more names in the Debt Source Group list, you must ensure that the Debt Source items listed under the Debt Group Selection list are re-selected to reflect the new Debt Source Group item(s) - they must be re-selected manually, this is not an automatic process.

The Cash Flow Worksheet

The top part of the Cash Flow worksheet contains a high level overview of the ALL Finance Structures, or only the selected finance structure as per the selection in the Finance worksheet. In addition, it provides a breakdown of the revenue, cost and equity and debt source elements that have been selected in the worksheets of the same names, which is based on the current finance structure selection in the finance worksheet. The following screen shows the top segment of the worksheet that is currently displaying a user-selectable **View Cycle**.

Cash Flow — **All 6 Structures with 20 Phases**

Project Length: 48 Months — Now viewing: 4 Quarters then Annual

	# of Months	3	3	3	3	12	12	12
	Period Ending	**Mar-12**	**Jun-12**	**Sep-12**	**Dec-12**	**Dec-13**	**Dec-14**	**Dec-15**
Totals for All Structures								
Revenue	**387,614,115**	51,000	-5,654	-64,537	12,955,448	102,036,492	164,841,366	107,800,000
Project Cost	**237,164,681**	26,222,727	19,221,361	49,028,457	50,954,145	91,538,494	199,496	0
All Finance Cost Incl. Mortgage(s)	**18,195,594**	211,435	2,139,866	2,193,654	2,337,899	6,905,486	3,938,785	468,469
Profit / Net for Period	**132,253,841**	**-26,383,162**	**-21,366,881**	**-51,286,648**	**-40,336,596**	**3,592,512**	**160,703,084**	**107,331,531**
Cumulative		-26,383,162	-47,750,043	-99,036,691	-139,373,287	-135,780,775	24,922,309	132,253,841

Project IRR	**34.0%**	Equity ROE	**238.7%**
Equity IRR	**61.2%**	Equity Multiple	**3.40**

File: 14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx
Location: C:\Users\david_000\Dropbox\AD - Excel Project (shared)\Excel Templates\

	# of Months	3	3	3	3	12	12	12
	Period Ending	**Mar-12**	**Jun-12**	**Sep-12**	**Dec-12**	**Dec-13**	**Dec-14**	**Dec-15**
Revenue for All Structures	**387,614,116**	**51,000**	**-5,654**	**-64,537**	**12,955,448**	**102,036,492**	**164,841,366**	**107,800,000**
Additional Revenue	**51,000**	**51,000**	**0**	**0**	**0**	**0**	**0**	**0**
Additional Revenue	51,000	51,000	0	0	0	0	0	0
Capitalized Rent	**247,613,157**	**0**	**0**	**0**	**12,500**	**0**	**142,600,657**	**105,000,000**
Capitalized Rent	250,850,657	0	0	0	0	0	145,850,657	105,000,000
Cap Rent Additions	9,791,667	0	0	0	41,667	0	9,750,000	0
Cap Rent Costs	-13,029,167	0	0	0	-29,167	0	-13,000,000	0
Cost Reducing Revenue items (-+)	**-5,511,052**	**0**	**-5,654**	**-64,537**	**-1,546,492**	**-493,293**	**-3,401,076**	**0**
Additional Revenue	-5,511,052	0	-5,654	-64,537	-1,546,492	-493,293	-3,401,076	0
Net Operating Income	**28,836,975**	**0**	**0**	**0**	**0**	**10,686,431**	**15,350,545**	**2,800,000**
Base Rental Income	29,226,975	0	0	0	0	10,883,097	15,543,878	2,800,000
Reimbursements	1,170,000	0	0	0	0	590,000	580,000	0
Operating Costs	-1,560,000	0	0	0	0	-786,667	-773,333	0
Unit Sales Additions and Costs	**-200,000**	**0**	**0**	**0**	**-31,417**	**-135,000**	**-33,583**	**0**
Sales Additions	350,000	0	0	0	57,167	247,500	45,333	0
Sales Costs	-550,000	0	0	0	-88,583	-382,500	-78,917	0
Unit Sales Deposits & Closings	**116,824,035**	**0**	**0**	**0**	**14,520,857**	**91,978,355**	**10,324,823**	**0**
Sales Deposits	2,000,000	0	0	0	2,000,000	0	0	0
Sales Closings	114,824,035	0	0	0	12,520,857	91,978,355	10,324,823	0

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Use the drop-down selector outlined in red to select from a number of different **View Cycles**. Notice that the # of Months and Period Ending headers are highlighted in yellow when the **View Cycle** is less than 12 months in the current column.

The Cash Flow worksheet contents are user-configurable in the following ways:

Revenue section:
The categories and the line items they contain are as defined in the Revenue worksheet.

Cost section:
This section contains only project cost items (as distinct from finance costs defined in the Finance Structures area of Developer). The categories and the line items they contain are as defined in the Cost worksheet.

Debt Sources section:
The categories and the line items they contain are as defined in the Debt worksheet.

Note that there are no totals provided for all selected categories, since totals are often inappropriate where, for example, selections have been made for contributions, repayments and profits.

Equity Sources section:
The categories and the line items they contain are as defined in the Equity worksheet. Totals for each category are displayed. Note that there are no totals provided for all selected categories, since totals are often inappropriate where, for example, selections have been made for contributions, repayments and profits. Providing totals for this example of selected items (and for many other combinations) could be misleading.

The Table Worksheets

There are seven worksheets in the template that provide tabular information on various aspects of any given ARGUS Developer project file that is downloaded. The tables include a significant amount of assumptions and calculated data that has been extracted from the FS_Data_Source worksheet and is provided for users who wish to develop their own analytical and informational reporting. The data is in simple list form, with a minimal amount of formatting and no Print Area definitions.

The Table Worksheets are:

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Structures	Data Table: all Finance Structures in Workbook (max 50)
Phases	Data Table: all Phases in Workbook (max 50)
CapAreas	Data Table: all Cap Area records in Workbook (max 250)
SalesAreas	Data Table: all Sales Area records in Workbook (max 250)
EquityTable	Data Table: all instances of Equity Activity in each Structure (max 100)
DebtTable	Data Table: all instances of Debt Activity in each Structure (max 100)
MtgTable	Data Table: all Mortgages in Workbook (max 50)

Limitations of the data sets are shown above, and are designed to accommodate an estimated 98%+ of all ARGUS Developer v6.5 projects.

A segment of a typical Table type Worksheet is shown below:

Phase Table (max 50)

			FS #	FSres	FS Name	# Phases	PHcntr	PHres	AD Ph#	Phase Name		Revenue	Rank	as % of Project	Cost	Rank	Pre Finance Profit	Rank	Pre Finance Profit as % of Cost	Rank	% of TPC	Total Sales
												387,564,115			237,044,419		150,519,696		100%			117,174,035
11	1	1	1	FS01_	Site A	6	1	PH01_	3	Site A - Retail 1	11	80,041,868	1	20.7%	48,348,793	1	31,693,076	1	21%	1	20%	0
12	2	1	FS01_	Site A	6	2	PH02_	4	Site A - Residential	12	19,350,000	6	5.0%	13,626,996	3	5,723,004	15	4%	15	6%	20,250,000
13	3	1	FS01_	Site A	6	3	PH03_	6	Site A - Res 3	13	19,600,000	5	5.1%	12,648,176	6	6,951,824	7	5%	7	5%	20,000,000
14	4	1	FS01_	Site A	6	4	PH04_	7	Site A - Res 4	14	19,600,000	5	5.1%	12,648,176	6	6,951,824	7	5%	7	5%	20,000,000
15	5	1	FS01_	Site A	6	5	PH05_	8	Site A - Land 1	15	9,000,000	19	2.3%	3,558,182	17	5,441,818	19	4%	19	2%	9,000,000
16	6	1	FS01_	Site A	6	6	PH06_	9	Site A - Land 2	16	9,000,000	19	2.3%	3,529,091	19	5,470,909	18	4%	18	1%	9,000,000
17	7	2	FS02_	Site B	1	1	PH01_	5	Site B - Res 2	17	20,472,559	3	5.3%	12,881,939	4	7,590,621	5	5%	5	5%	20,924,035
18	8	3	FS03_	Site C	3	1	PH01_	10	Site C - Land 3	18	9,000,000	19	2.3%	3,516,404	20	5,483,596	16	4%	16	1%	9,000,000
19	9	3	FS03_	Site C	3	2	PH02_	12	Site C - Retail 2	19	9,927,030	16	2.6%	5,801,273	16	4,125,757	20	3%	20	2%	0
20	10	3	FS03_	Site C	3	3	PH03_	14	Site C - Retail 4	20	30,550,058	2	7.9%	21,883,845	2	8,666,212	2	6%	2	9%	0
21	11	4	FS04_	Site D	4	1	PH01_	11	Site D - Land 4	21	9,000,000	19	2.3%	3,529,091	19	5,470,909	18	4%	18	1%	9,000,000
22	12	4	FS04_	Site D	4	2	PH02_	13	Site D - Retail 3	22	17,211,300	8	4.4%	8,927,136	15	8,284,164	4	6%	4	4%	0
23	13	4	FS04_	Site D	4	3	PH03_	15	Site D - Retail 5	23	17,211,300	8	4.4%	8,927,136	15	8,284,164	4	6%	4	4%	0
24	14	4	FS04_	Site D	4	4	PH04_	16	Site D - Office 1	24	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
25	15	5	FS05_	Site E	4	1	PH01_	17	Site E - Office 2	25	16,800,000	12	4.3%	11,043,636	9	5,756,364	13	4%	13	5%	0
26	16	5	FS05_	Site E	4	2	PH02_	18	Site E - Office 3	26	16,800,000	12	4.3%	11,072,727	7	5,727,273	14	4%	14	5%	0
27	17	5	FS05_	Site E	4	3	PH03_	19	Site E - Office 4	27	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
28	18	5	FS05_	Site E	4	4	PH04_	20	Site E - Office 5	28	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
29	19	6	FS06_	Site F	2	1	PH01_	21	Site F - Office 6	29	16,800,000	12	4.3%	11,043,636	9	5,756,364	13	4%	13	5%	0
30	20	6	FS06_	Site F	2	2	PH02_	22	Site F - Retail 2	30	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0

The included data is quite extensive with the tables typically scrolling down and right.

Modification Guidelines

ARGUS Developer users will likely wish to use the Excel analysis workbooks as a basis for custom reports which may be updated to refresh the data from ARGUS Developer models. There are four methods to consider:

Option 1: do direct modifications to existing workbook (not recommended), as we cannot support templates that have been modified in any way.

Option 2: add new worksheets to existing file and reference existing content using standard Excel functionality.

Option 3: create a new Excel Workbook then reference existing content – this will create links that work well, but there are some caveats, such as changing the name/location of the file being referenced with the links. This requires a clear understanding of how links work within Excel.

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Option 4: use the series of data table worksheets that are included with the template to develop your own reports and analysis – note that this requires a relatively high level of Excel expertise.

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Excel Integrated Analytics

The Excel template workbook included with ARGUS Developer v6.5 provides a simple way to export one or more Finance Structures from an ARGUS Developer v6.5 file to Excel version 2007 and up. The workbook provides dashboards, data tables, charts, cash flow reports and user-accessible data, formatting, and calculations. You can use the template as-is, or as the foundation for custom reports and analysis, utilizing standard Excel formulas and formatting controls.

Other features of the Workbook include:

- User-defined categories can be assigned to line items and used within each chart and table
- Workbooks may be easily refreshed with updated data from ARGUS Developer
- No macros, Excel Add-ins or other hidden processes of any kind are used, allowing for ease of access and modification by users
- Up to 50 Phases can be downloaded simultaneously any combination of structures within the 50 Phases is allowed. Maximum total project length is 240 months.
- The ARGUS Developer file can have up to 10 Debt and 10 Equity Sources that are used by any or all of the individual finance structures
- Charts are dynamic as to project length and elements being charted you do not have to adjust the charts as to the data and timing that is being shown.
- Each finance structure can be viewed independently, and can be combined into totals with the other finance structure(s) that are exported
- The ability to create your own worksheets or separate workbooks that reference the contents of the template through the use of standard Excel formulas, and links, respectively. Any changes and or additions you make and save to a particular workbook are retained for future sessions. Such changes made to a particular workbook are exclusive to that workbook – they do not affect other Excel Template workbooks or the originating Template itself.
- Ability to maintain multiple versions of the Workbook, simply by doing a **File Save As** within Excel.
- Ability to create and deploy your own Templates (xltx) files within the ARGUS Developer environment, by saving an Excel workbook as an Excel template in the designated Excel templates folder, as described following.

Note: The Excel template included with the product has been designed to only work with ARGUS Developer v6.50 and subsequent versions. Please contact ARGUS Software, if you wish to upgrade from an earlier version. Clients active on maintenance may upgrade to ARGUS Developer 6.5 at no cost.

Selecting a Phase Group for exporting to Excel Analysis Report

Before exporting, the user has to select what data will be included.

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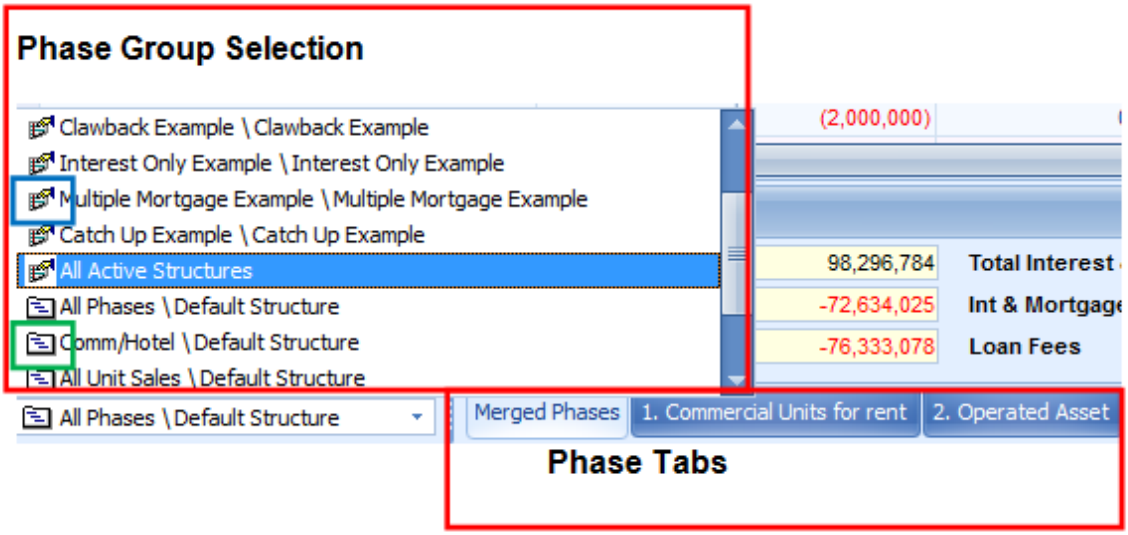
In most cases, it is advised to select *All Active Structures* and *Merged Phases*. Following is a more detailed explanation.

When creating a new analysis workbook, or updating an existing analysis, the data exported will be controlled by the selected Phase Group as well as the selected Phase tab. See Finance Structures.



Before making the selection, it should be noted that there are two styles of Phase Groups which have slightly differing effects on the export process to Excel. They are differentiated by their icons:

New Style Phase Group

Old Style Phase Group

The older style phase groups are from legacy versions of ARGUS Developer prior to version 6.0. The Excel Analysis reporting template introduced in Developer version 6.5 makes use of the new style phase group only.

If the user selects an old style phase group and performs a new or updated analysis reporting export, the *FS_Data_Source* worksheet will not be populated. Instead, a *Data_source* tab will be created and populated. Note that none of the other worksheets within the Excel Template reference to the Data Source tab. They only reference the *FS_Data_Source* tab.

Phase Group and Phase tab selection is important when performing the Excel Analysis. Be careful not to confuse which selections are made. In addition, some exports are not allowed.

If you are using one of the newer phase group selections and have multiple finance phases, you must select the Merged Phases tab to be able to create a new or updated analysis report.

The following table provides a summary of Excel export options:

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Phase Group and Phase Tab Selection choices for Excel Analysis Exports				
Old/New Style	**Phase Group Selection**	**Phase Tab Selection**	**Number of Phases in Phase Group**	**Destination Sheet**
Old	All Phases / Default Structure	Merged	> 1	Data_Source
		Single	1	Data_Source
Old	Project Phase Group/Default Structure	Merged	> 1	Data_Source
		Single	1	Data_Source
Old	All Infrastructure Phases	Merged	> 1	Data_Source
		Single	1	Data_Source
New	Finance Phase Group/User Defined Structure	Single	1	FS_Data_Source
		Single	> 1	Export Not Allowed
		Merged	> 1	FS_Data_Source
New	All Active Structures	Single	1	Active Structures not listed and Export Not Allowed
		Single	> 1	Export Not Allowed
		Merged	> 1	FS_Data_Source

Whatever finance structures are included in the Active list, you must still focus on the Merged Phases tab as discussed above in order for the relevant finance structures to be exported. The only exception to this is a finance structure that contains only one phase in this case, you would only need to ensure that the correct Finance Phase Group (Phase 1) / Finance Structure is selected – in essence, a single phase.

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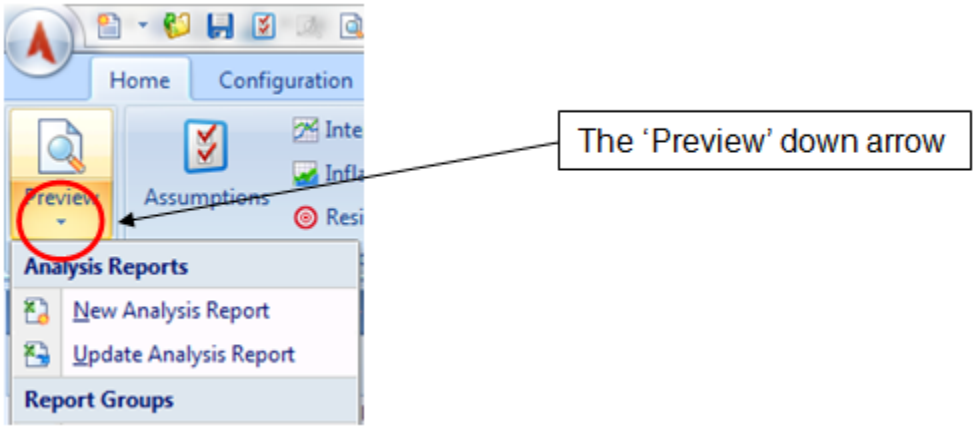
Exporting into an Excel Template (xltx) file

Select the Finance Structure(s) you wish to export to the Excel template.

Ensure that the Excel Template Workbook file is not open in Excel. Excel may or may not be open prior to performing a download – if Excel is not running; ARGUS Developer will open it as part of the download process.

Note: it is generally better not to have other large Excel files open when the download is running, depending upon the processor speed/memory available on your computer.

Click on the **Preview** button to display reporting options and select the *New Analysis Report*.



The *New Analysis Report* option will bring up the following Import and Export Data window that lists all the available analysis templates:

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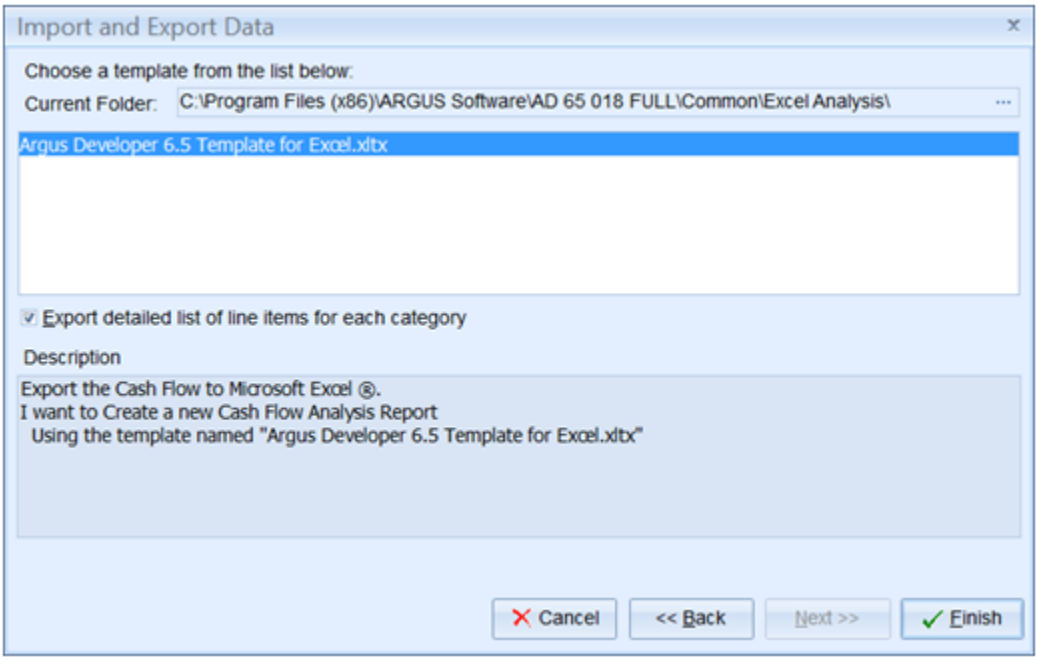

Note: Your ARGUS Developer v6.50 installation is supplied with the default analysis named: ARGUS Developer 6.5 Template for Excel.xltx. In the following (default) folder (or check if installed on a server): C:\Program Files (x86)\ARGUS Software\ARGUS Developer\Common\Excel Analysis

- Ensure that the check box in the above screen for *Export detailed list of line items for each category* is selected (it will remain selected in future sessions once you check it the first time);
- If you create modified versions of the standard Excel template above, you can save them as a template within Excel (it must have an xltx file name extension), and save them to the current folder location as displayed in the window in your own installation of ARGUS Developer;
- Once you select a template file from the above for downloading and the downloading process is complete, the resulting file is a standard Excel (xlsx) file, with a '1' appended to the file name. The original template file is not altered.
- Once you have clicked the **Finish** button, Developer will display the following screen until the download process is complete:

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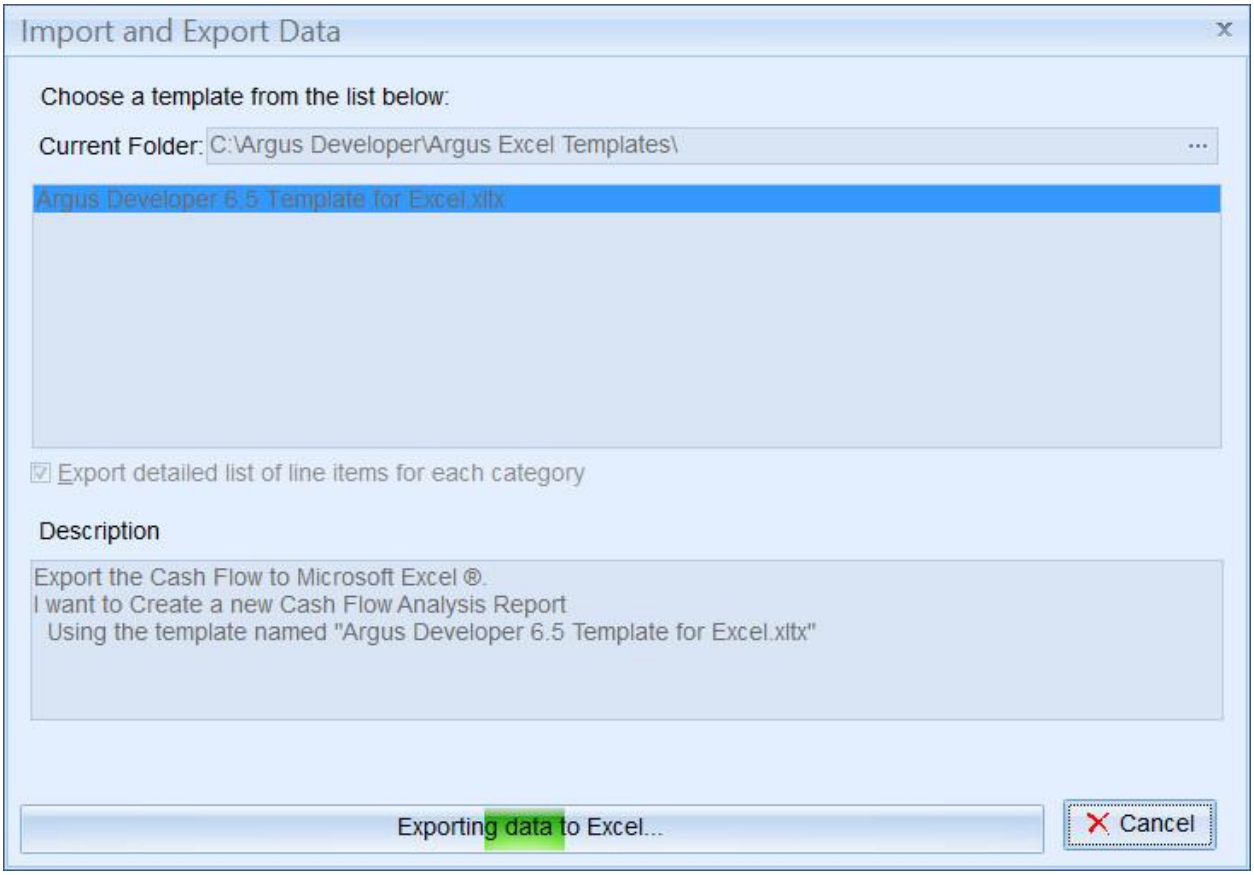

It is recommended that you do not disturb this download process, which should take a few minutes or less on most computers. In particular, do not do any activity with Excel until the process is complete, as ARGUS Developer requires control of Excel during the download process.

During the download process, the following actions are performed under ARGUS Developer's control, in the following order:

- The selected template file is opened by Excel and an exact copy of it is made as a regular Excel workbook file, with the same name as the selected template plus a '1' appended, and an 'xlsx' extension.
- The 'FS_Data_Source' worksheet within the selected template is cleared of all prior content, and updated with the data that is being exported from the current working ARGUS Developer v6.5 file; (note that the 'FS_Data_Source' worksheet is normally *Hidden* as it contains only the raw, un-formatted data from the export).
- A full calculation is performed on the file – the equivalent of manually pressing the F9 (Recalculate) button in Excel.
- The status of recalculation of the Excel file is set to *Automatic*. You can change this to *Manual* if you wish – it generally speeds up operations in Excel, but remember to force a calculation with **F9** when you make a change to the Excel file.
- The far left tab (Worksheet) of the Workbook is opened. The default far left Worksheet is the Finance tab, which is shown following.

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Special notes about the export process:

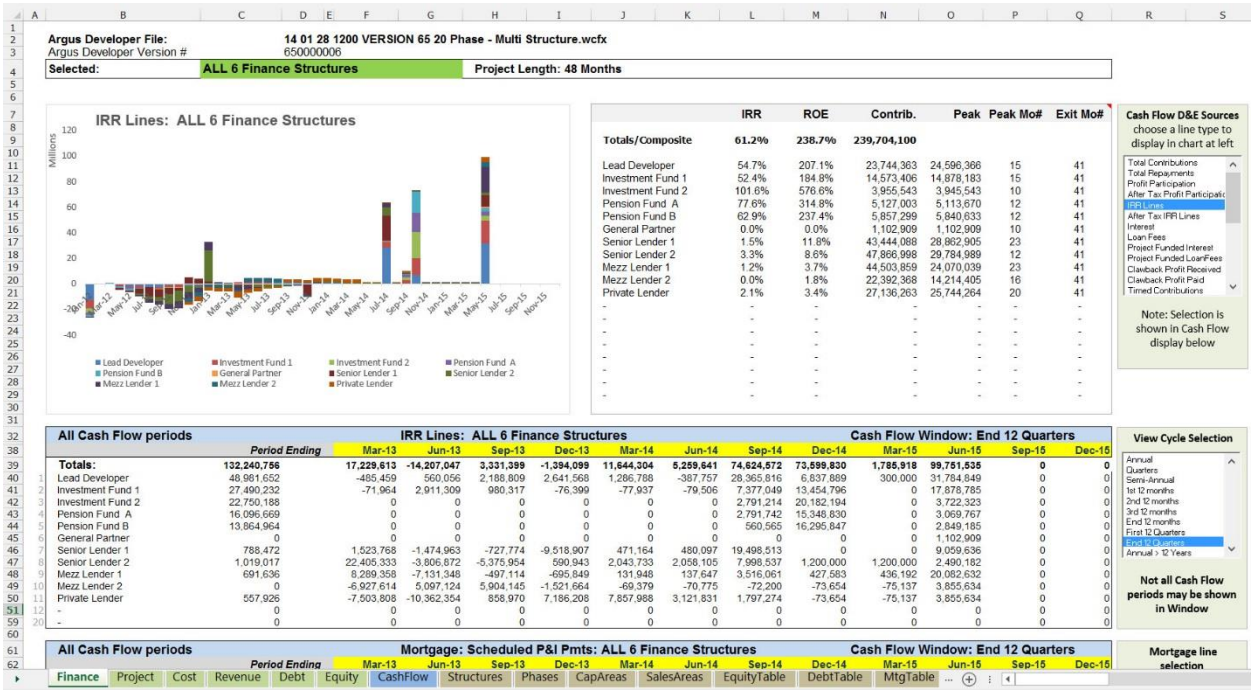
The resulting workbook has the same name as the selected Template plus a '1' appended, and an 'xlsx' extension, making it a standard, non-macro enabled Excel Workbook.

The resulting workbook is not saved; it is up to the user to save the file to a location of choice.

Once the process described above is complete, ARGUS Developer has no further control over the workbook, and it does not require the continued presence or operation of ARGUS Developer.

Once the downloading to Excel process is complete, the above screen will disappear and you will be returned to ARGUS Developer's workspace area.

At this point, you can switch to the Excel Workbook, which in its default configuration be focused on the 'Finance' tab, will look something like the following, depending upon the actual ARGUS Developer data set:



You can save the workbook file to any location/name you wish - see recommendation following. Such renamed files may be used as a target for future updating.

The export process is designed to work with Excel files that are based on the layout of the default Excel template file that is supplied with ARGUS Developer v6.5.

To facilitate ease of access of Template files (default and newly created) with downloaded content from ARGUS Developer v6.5, take note of the setting for 'User Data'. See Folder Locations.

How to Download into an existing Excel (.xlsx) Workbook:

Select the Finance Structure(s) and Phase(s) you wish to export to the existing Excel workbook.

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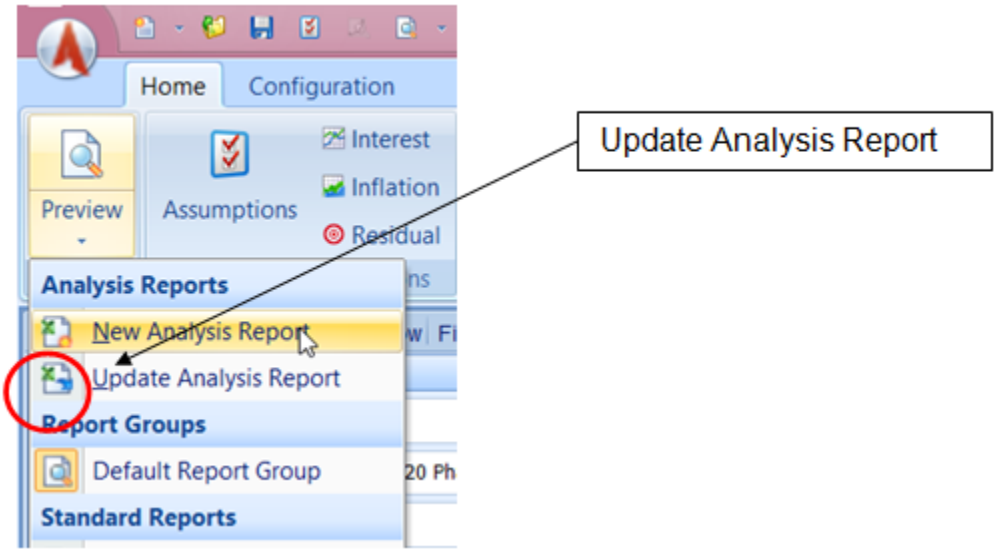
Ensure that the Excel Workbook file is not open in Excel. Excel may or may not be open prior to performing a download – if Excel is not running; ARGUS Developer will open it as part of the download process.

Note: it is generally better not to have other large Excel files open when the download is running, depending upon the processor speed/memory available on your computer.

Click on the **Preview** button to display reporting options and select *Update Analysis Report*.



The Import & Export window will list the name of the workbooks in the User Data folder. Select the relevant file and click **Finish** to start the update process.

Initially, you will not have any template-based Excel workbooks (xlsx format) available, until you have downloaded into a template file (xltx format) and saved it as a regular (xlsx format) to a location of your choice.

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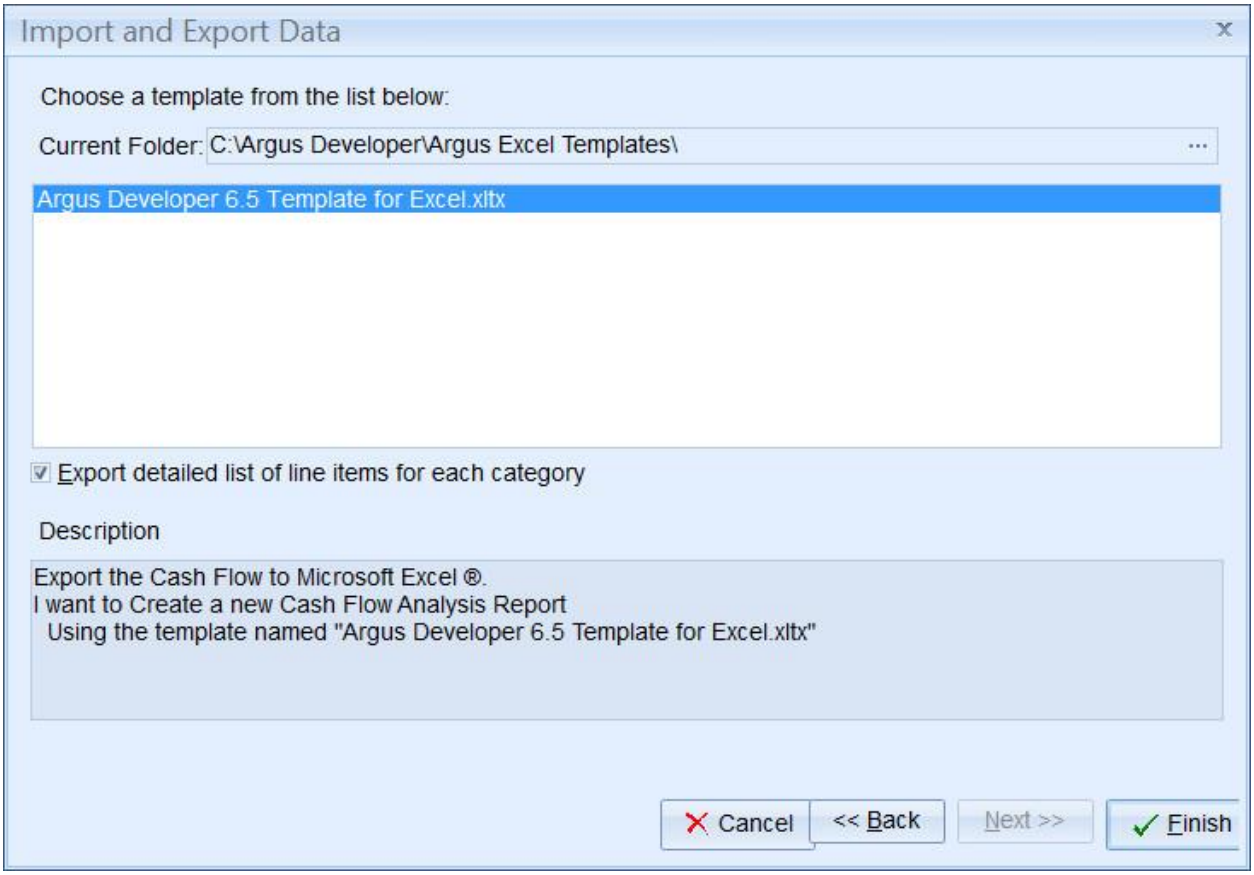

Once the downloading to Excel process is complete, you will be returned to ARGUS Developer's workspace area and be able to switch to the Excel workbook.

Overview of contents of the Excel Template Workbook

The Excel Template workbook provides both summarized and detailed information on the downloaded ARGUS Developer file from a variety of perspectives. A listing of the key worksheets and a brief description of each is as follows:

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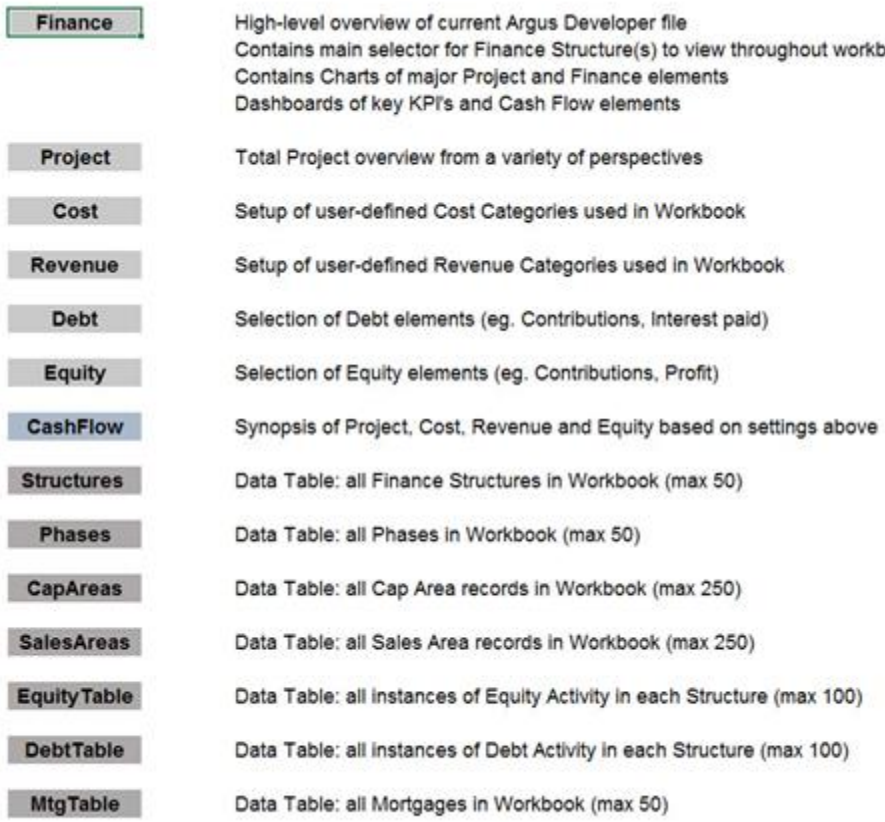

The balance of worksheets in the workbook contain the data and extraction calculations that facilitate the presentation of worksheets noted above and are hidden to protect the integrity of the calculations. They can be viewed (and edited, but this is not recommended) by right-clicking on any worksheet tab, then select the worksheet you wish to view from the popup menu that appears.

Some operational guidelines when using the template:

- Excel Print Areas have been defined for the worksheets listed above, except for the table-style worksheets.
- Pop-up information has been embedded into many headers throughout the workbook, that operate much like tool tips in ARGUS Developer, except that you must click on the header first. These are included to expand on and clarify the header text.
- Data Group buttons have been used throughout the Excel workbook to alternately hide/un-hide rows and columns. Their presence is apparent when you see small numbered buttons or lines just to the top of and left of the column and row letters and numbers. This provides for an easy way to expand and contract the visible area of the worksheets depending upon the size of the ARGUS Developer file that has been downloaded. You can change the rows and columns that are included in the Data Groups with standard Excel commands (e.g., Data-Group-Group-Hide or Unhide).
- Some worksheets have areas which do not display or allow edits to selected formulas. This has been done to prevent accidental erasure or unintended edits. However, these protected areas are not

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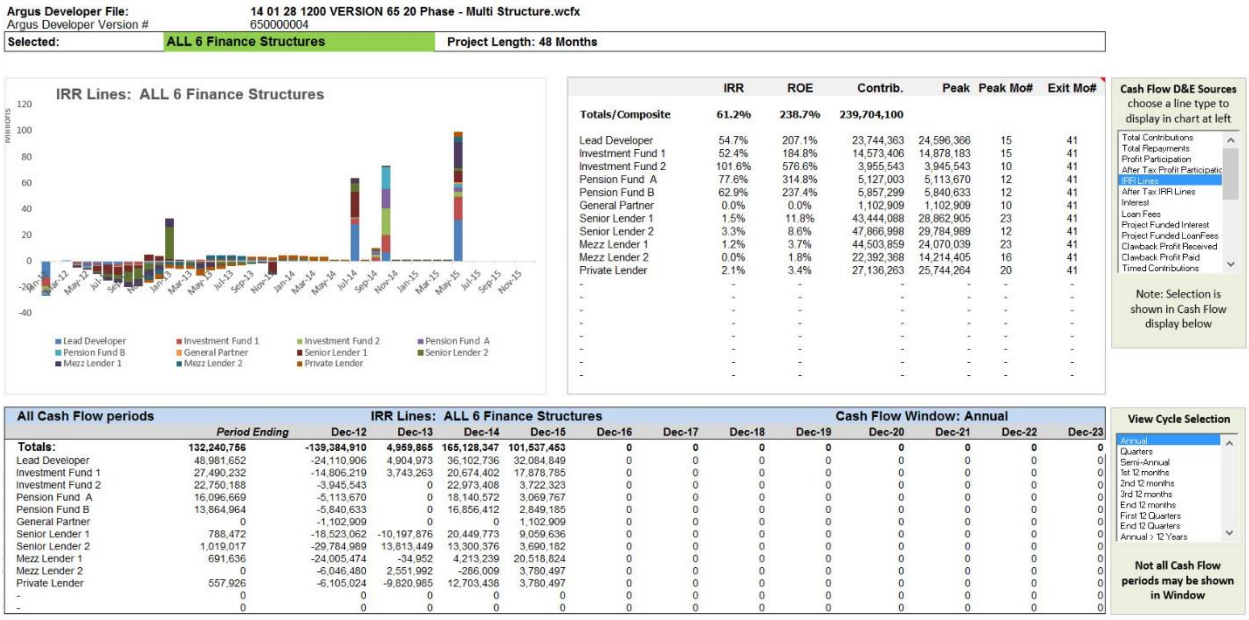
password protected, so it is a relatively simple matter to unprotect and make visible and editable such areas. Editing, while possible, is not recommended without a thorough understanding of how the Excel template is structured. See Excel documentation regarding cell and worksheet protection.

The Finance Worksheet:

This is the main focal point of the Excel template, as it provides a number of tables, charts, and a dashboard-style "window" for rapid analysis of your Developer file.

By default, the finance worksheet is the point of entry into the Excel template when an export is run. It contains a number of selectors to control what data appears in charts and in the cash flow Dashboard Windows.

The following shows a partial view (roughly the top third) of the finance worksheet, populated with an example of a 6 Structure ARGUS Developer project:



You can control the content of the charts and tables with the following highlighted selectors, starting at the top:

All Finance Structures:

Click in the green area to reveal a small down-arrow button to display a selection of all finance structures available or **ALL**

Cash Flow D &E Sources:

Choose from a large variety of Debt & Equity Cash Flow line items that will be used in the chart at left and in the Cash Flow window

View Cycle Selection:

Choose from the available options to display in the Cash Flow window. If less than all cash flow periods from your project are shown, which is possible depending upon the selection made, text in red will appear at the top of the Cash Flow window indicating this.

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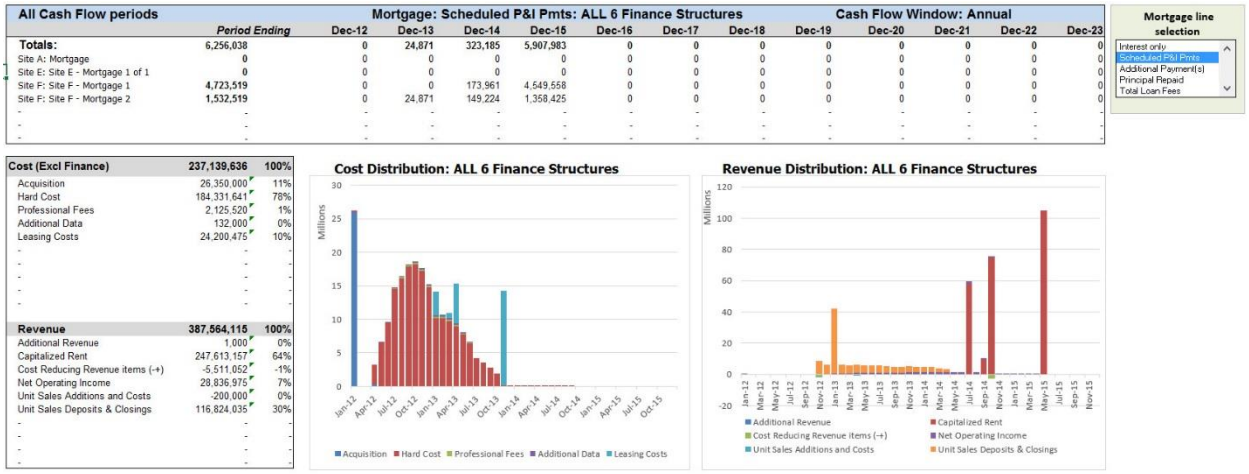
Note: The workbook must be recalculated for your selection(s) to take effect. Click **Calculate Now** button (Configuration ribbon bar) or **F9**.

The following screen shows the middle section of the Finance Worksheet:



This section provides a Cash Flow Dashboard window for Mortgage information, and some key information and charts related to Cost and Revenue Distribution (the content of these are set in the Cost and Revenue worksheets).

The selection of what mortgage information to display is made in the highlighted selector entitled Mortgage line selection, while the View Cycle is set as per the **View Cycle** Selection.

The following screen shows the final section of the Finance Worksheet:

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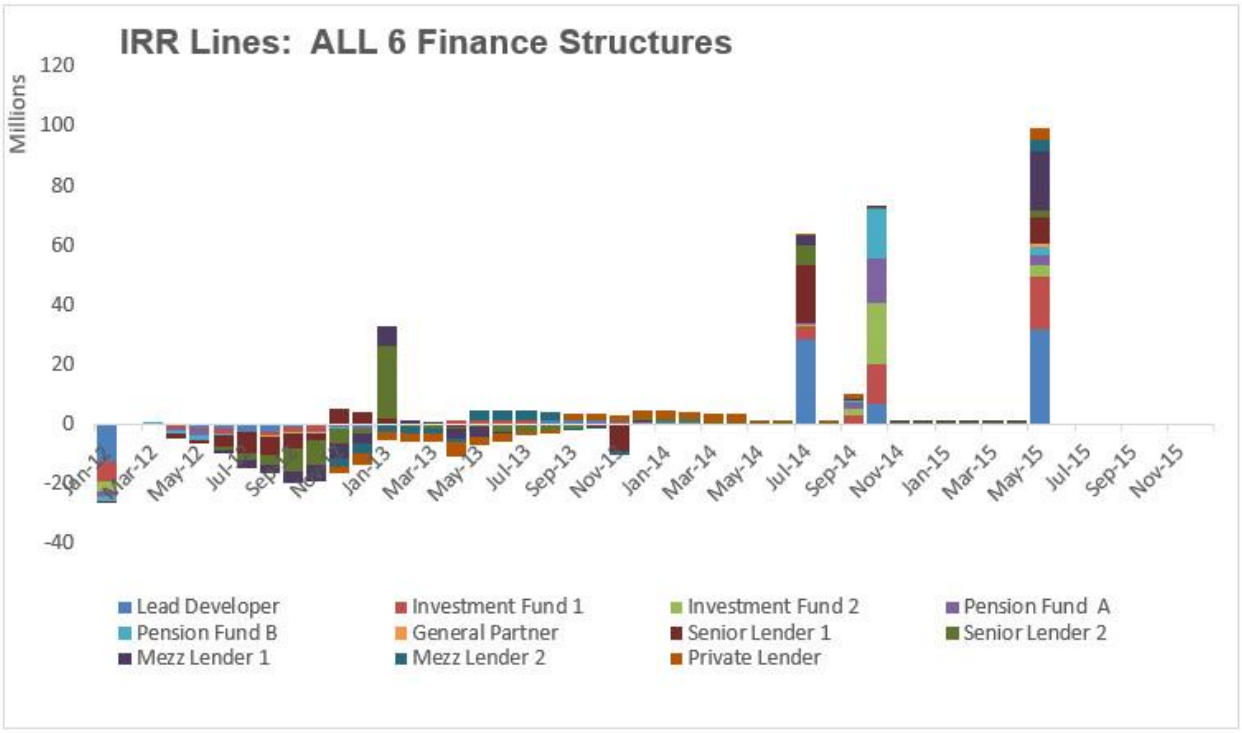
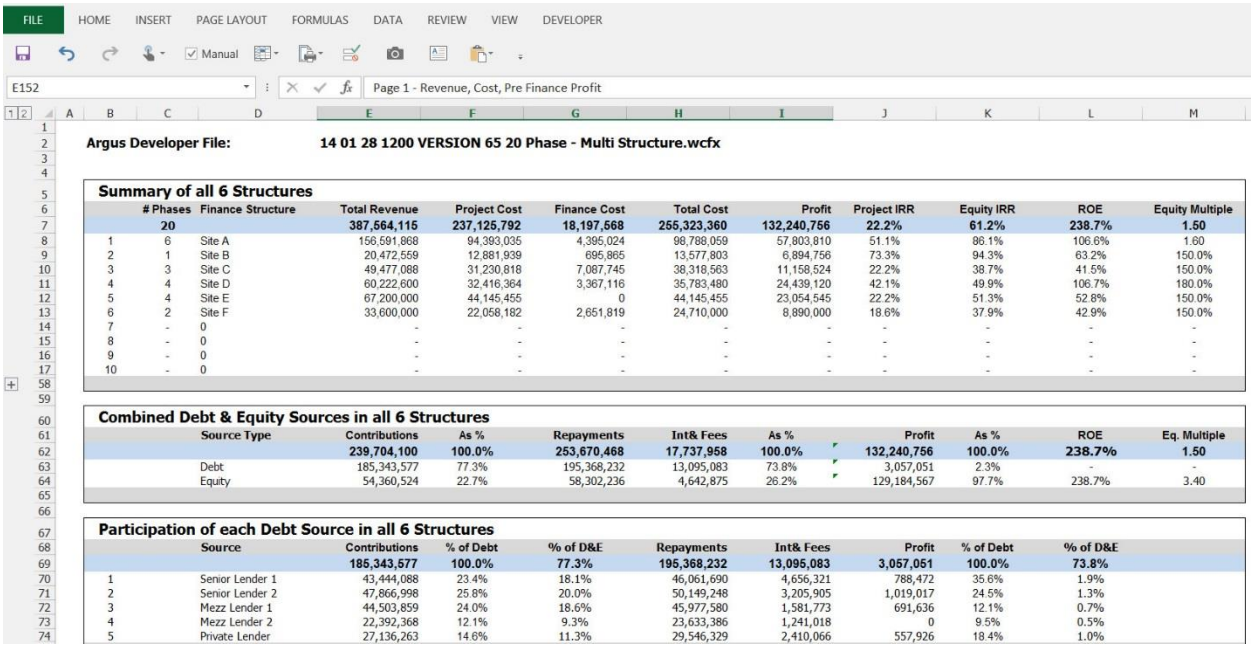


This section does not contain any view selectors; however, the content of the Equity and Debt tables and Charts are controlled by selections you make in the Equity and Debt Worksheets.

The Project Worksheet:

The Project worksheet provides a high-level summary of KPIs for all Finance Structures currently downloaded in the workbook. The following is an example, populated with a multi-structure project:



FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER

Manual

E152 | Page 1 - Revenue, Cost, Pre Finance Profit

Argus Developer File: 14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx

Summary of all 6 Structures

	# Phases	Finance Structure	Total Revenue	Project Cost	Finance Cost	Total Cost	Profit	Project IRR	Equity IRR	ROE	Equity Multiple
	20		387,564,115	237,125,792	18,197,568	255,323,360	132,240,756	22.2%	61.2%	238.7%	1.50
1	6	Site A	156,591,868	94,393,035	4,395,024	98,788,059	57,803,810	51.1%	86.1%	106.6%	1.60
2	1	Site B	20,472,559	12,881,939	695,865	13,577,803	6,894,756	73.3%	94.3%	63.2%	150.0%
3	3	Site C	49,477,088	31,230,818	7,087,745	38,318,563	11,158,524	22.2%	38.7%	41.5%	150.0%
4	4	Site D	60,222,600	32,416,364	3,367,116	35,783,480	24,439,120	42.1%	49.9%	106.7%	180.0%
5	4	Site E	67,200,000	44,145,455	0	44,145,455	23,054,545	22.2%	51.3%	52.8%	150.0%
6	2	Site F	33,600,000	22,058,182	2,651,819	24,710,000	8,890,000	18.6%	37.9%	42.9%	150.0%
7	-	0	-	-	-	-	-	-	-	-	-
8	-	0	-	-	-	-	-	-	-	-	-
9	-	0	-	-	-	-	-	-	-	-	-
10	-	0	-	-	-	-	-	-	-	-	-

Combined Debt & Equity Sources in all 6 Structures

	Source Type	Contributions	As %	Repayments	Int& Fees	As %	Profit	As %	ROE	Eq. Multiple
		239,704,100	100.0%	253,670,468	17,737,958	100.0%	132,240,756	100.0%	238.7%	1.50
	Debt	185,343,577	77.3%	195,368,232	13,095,083	73.8%	3,057,051	2.3%	-	-
	Equity	54,360,524	22.7%	58,302,236	4,642,875	26.2%	129,184,567	97.7%	238.7%	3.40

Participation of each Debt Source in all 6 Structures

	Source	Contributions	% of Debt	% of D&E	Repayments	Int& Fees	Profit	% of Debt	% of D&E
		185,343,577	100.0%	77.3%	195,368,232	13,095,083	3,057,051	100.0%	73.8%
1	Senior Lender 1	43,444,088	23.4%	18.1%	46,061,690	4,656,321	788,472	35.6%	1.9%
2	Senior Lender 2	47,866,998	25.8%	20.0%	50,149,248	3,205,905	1,019,017	24.5%	1.3%
3	Mezz Lender 1	44,503,859	24.0%	18.6%	45,977,580	1,581,773	691,636	12.1%	0.7%
4	Mezz Lender 2	22,392,368	12.1%	9.3%	23,633,386	1,241,018	0	9.5%	0.5%
5	Private Lender	27,136,263	14.6%	11.3%	29,546,329	2,410,066	557,926	18.4%	1.0%

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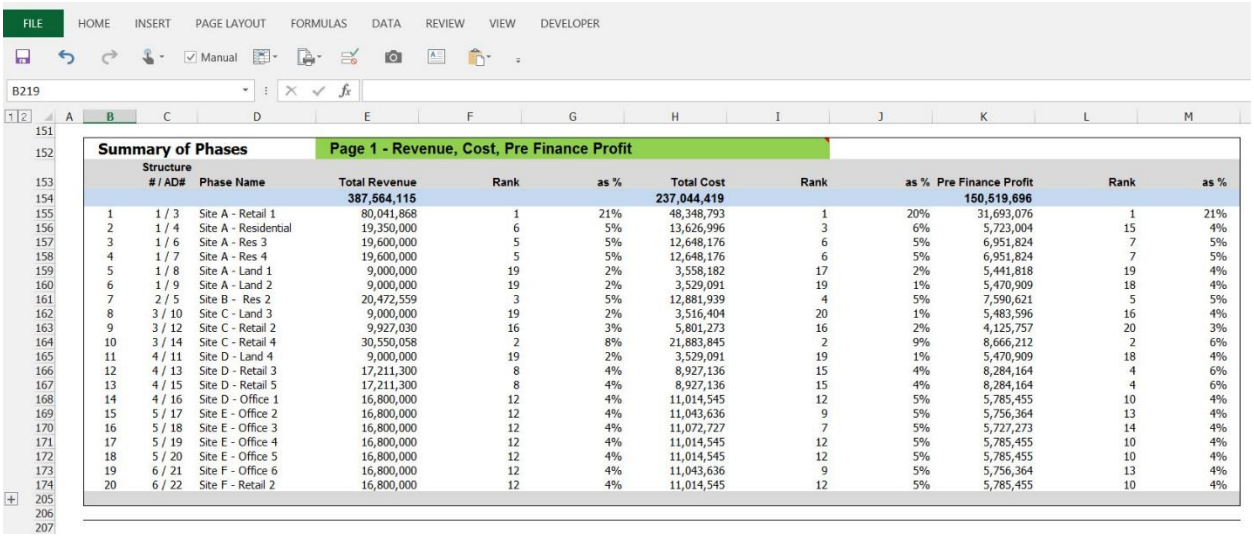
In the screen segment above, there are no selectors, however, on the following segment representing the lower half of the Project Worksheet, there is a choice of three "pages" of information about the phases in the Project:



Summary of Phases			Page 1 - Revenue, Cost, Pre Finance Profit								
	Structure # / AD#	Phase Name	Total Revenue	Rank	as %	Total Cost	Rank	as %	Pre Finance Profit	Rank	as %
			387,564,115			237,044,419			150,519,696		
1	1 / 3	Site A - Retail 1	80,041,868	1	21%	48,348,793	1	20%	31,693,076	1	21%
2	1 / 4	Site A - Residential	19,350,000	6	5%	13,626,996	3	6%	5,723,004	15	4%
3	1 / 6	Site A - Res 3	19,600,000	5	5%	12,648,176	6	5%	6,951,824	7	5%
4	1 / 7	Site A - Res 4	19,600,000	5	5%	12,648,176	6	5%	6,951,824	7	5%
5	1 / 8	Site A - Land 1	9,000,000	19	2%	3,558,182	17	2%	5,441,818	19	4%
6	1 / 9	Site A - Land 2	9,000,000	19	2%	3,529,091	19	1%	5,470,909	18	4%
7	2 / 5	Site B - Res 2	20,472,559	3	5%	12,881,939	4	5%	7,590,621	5	5%
8	3 / 10	Site C - Land 3	9,000,000	19	2%	3,516,404	20	1%	5,483,596	16	4%
9	3 / 12	Site C - Retail 2	9,927,030	16	3%	5,801,273	16	2%	4,125,757	20	3%
10	3 / 14	Site C - Retail 4	30,550,058	2	8%	21,883,845	2	9%	8,666,212	2	6%
11	4 / 11	Site D - Land 4	9,000,000	19	2%	3,529,091	19	1%	5,470,909	18	4%
12	4 / 13	Site D - Retail 3	17,211,300	8	4%	8,927,136	15	4%	8,284,164	4	6%
13	4 / 15	Site D - Retail 5	17,211,300	8	4%	8,927,136	15	4%	8,284,164	4	6%
14	4 / 16	Site D - Office 1	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
15	5 / 17	Site E - Office 2	16,800,000	12	4%	11,043,636	9	5%	5,756,364	13	4%
16	5 / 18	Site E - Office 3	16,800,000	12	4%	11,072,727	7	5%	5,727,273	14	4%
17	5 / 19	Site E - Office 4	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
18	5 / 20	Site E - Office 5	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%
19	6 / 21	Site F - Office 6	16,800,000	12	4%	11,043,636	9	5%	5,756,364	13	4%
20	6 / 22	Site F - Retail 2	16,800,000	12	4%	11,014,545	12	5%	5,785,455	10	4%

The highlighted selector box for the Summary of Phases provides for a choice of:

- Page 1 – Revenue, Cost, Pre Finance Profit
- Page 2 – Revenue Components
- Page 3 – Unit Areas, Ratios and Counts

The Cost & Revenue Worksheets

In the Cost and Revenue Worksheets you can define your own Cost and Revenue Groups that will be used in charts and cash flows throughout the rest of the workbook.

Since the design and operation of each workbook is the same (except that there are fewer Revenue items), this section covers both cost and revenue worksheets. The example shown here is for the cost worksheet, but the same comments apply to each.

The top area of the Cost Workbook is shown below:

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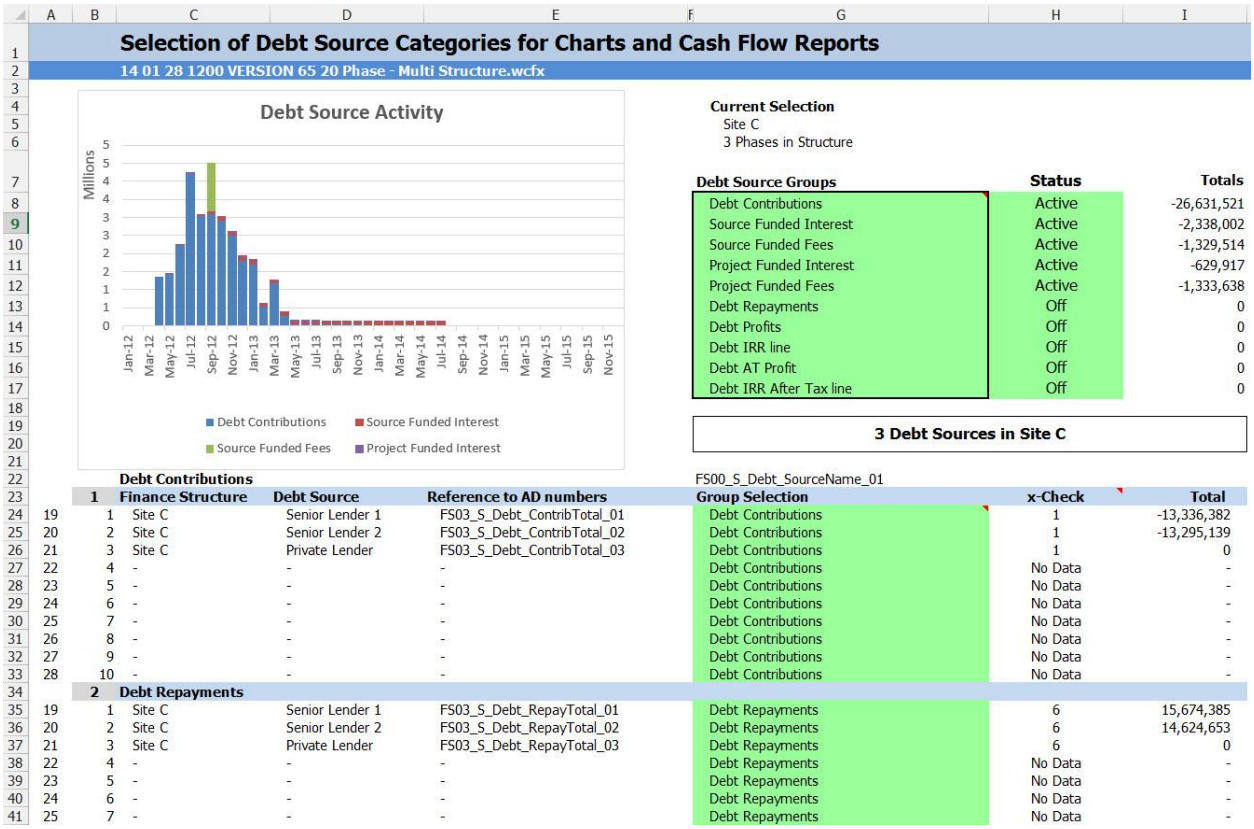

Selection of Debt Source Categories for Charts and Cash Flow Reports

14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx

Debt Source Activity

Millions

Debt Contributions | Source Funded Interest | Source Funded Fees | Project Funded Interest

Current Selection
Site C
3 Phases in Structure

Debt Source Groups	Status	Totals
Debt Contributions	Active	-26,631,521
Source Funded Interest	Active	-2,338,002
Source Funded Fees	Active	-1,329,514
Project Funded Interest	Active	-629,917
Project Funded Fees	Active	-1,333,638
Debt Repayments	Off	0
Debt Profits	Off	0
Debt IRR line	Off	0
Debt AT Profit	Off	0
Debt IRR After Tax line	Off	0

3 Debt Sources in Site C

Debt Contributions

FS00_S_Debt_SourceName_01

	1	Finance Structure	Debt Source	Reference to AD numbers	Group Selection	x-Check	Total
19	1	Site C	Senior Lender 1	FS03_S_Debt_ContribTotal_01	Debt Contributions	1	-13,336,382
20	2	Site C	Senior Lender 2	FS03_S_Debt_ContribTotal_02	Debt Contributions	1	-13,295,139
21	3	Site C	Private Lender	FS03_S_Debt_ContribTotal_03	Debt Contributions	1	0
22	4	-	-	-	Debt Contributions	No Data	-
23	5	-	-	-	Debt Contributions	No Data	-
24	6	-	-	-	Debt Contributions	No Data	-
25	7	-	-	-	Debt Contributions	No Data	-
26	8	-	-	-	Debt Contributions	No Data	-
27	9	-	-	-	Debt Contributions	No Data	-
28	10	-	-	-	Debt Contributions	No Data	-
34	2	**Debt Repayments**					
35	1	Site C	Senior Lender 1	FS03_S_Debt_RepayTotal_01	Debt Repayments	6	15,674,385
36	2	Site C	Senior Lender 2	FS03_S_Debt_RepayTotal_02	Debt Repayments	6	14,624,653
37	3	Site C	Private Lender	FS03_S_Debt_RepayTotal_03	Debt Repayments	6	0
38	4	-	-	-	Debt Repayments	No Data	-
39	5	-	-	-	Debt Repayments	No Data	-
40	6	-	-	-	Debt Repayments	No Data	-
41	7	-	-	-	Debt Repayments	No Data	-

The areas with a green background are for user input and selection, as described below.

The following describes the highlighted areas of the above screen:

Cost Groups:

You can create up to ten cost groups simply by typing the names (each must be unique) you wish to use for cost group categories in the charts and Cash Flows in this workbook. The cost group names you enter then become the list of valid selections in the Group Selection list area highlighted above. When you change or delete one or more names in the Cost Group list, you must ensure that the cost items listed under the Group Selection list are re-selected to reflect the new Cost Group item(s) – this is not an automatic process, they must be re-selected manually.

Under the Acquisition heading:

This list, which scrolls down, shows every available cost category cash flow item within the Project definition area of Developer, including all items that are not explicitly part of the Developer Definition screen. It does not include finance costs, which are dealt with in the Finance worksheet.

Custom Category Label:

You can type in how you want the labels under the Acquisition heading to appear in charts and cash flows within the workbook.

Group Selection:

When you click on a Group Selection item, a small down arrow button appears that will show a list of the items in the Cost Groups list above. Your selection here determines which item(s) will be included in any particular Cost Group. Every Group Selection item must have a selection made based on the

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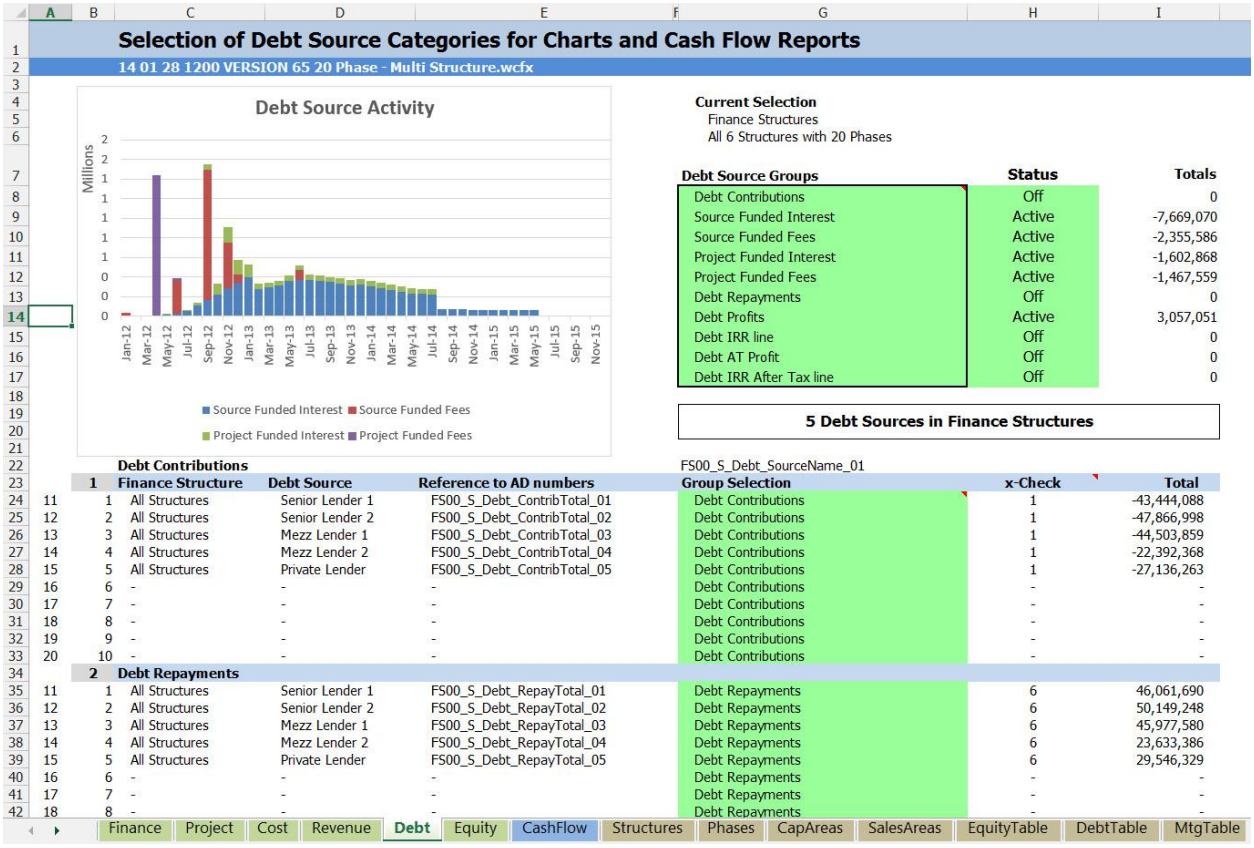
contents of the current Cost Group list. **Important:** as previously noted, when you change or delete one or more names in the Cost Group list, you must ensure that the cost items listed under the Group Selection list are re-selected to reflect the new Cost Group item(s) - they must be re-selected manually, this is not an automatic process.

The Debt and Equity Worksheets

In the Debt and Equity Worksheets you can create your own Debt and Equity Groups that will be used in the appropriate charts and cash flows throughout the rest of the workbook.

Since the design and operation of each of these worksheets is the same, this section covers both Debt and Equity worksheets. The example shown here is for the Debt worksheet, but the same comments apply to each.

The top area of the Debt Worksheet is shown below:



The areas with a green background are for user input and selection.

Debt Source Groups:

You can define the description of the 10 Debt Source Groups that are available simply by typing the names (each must be unique) you wish to use for Debt Source Group categories in the Charts and Cash Flows in this Workbook. The Debt Source Group names you enter then become the list of valid selections in the Group Selection list area highlighted above. When you change or delete one or more names in the Debt Source Group list, you must ensure that the Debt Source items listed under the Group Selection list are re-selected to reflect the new Debt Source Group item(s) - they must be re-selected manually.

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Status:
For each Debt Source Group, each item can toggle between **Active** or **Off**. If a Group is **Active**, then it will be included in Charts and Cash Flows that use this section, throughout the rest of the workbook.

Group Selection:
When you click on a **Debt Group Selection** item, a small down arrow button appears that will display the list of the items defined in the Debt Source Groups. The selection determines which item(s) will be included in any particular Debt Source Group. Every **Debt Group Selection** item must have a selection made based on the contents of the current Debt Source Group list. **Important:** as noted previously, when you change or delete one or more names in the Debt Source Group list, you must ensure that the Debt Source items listed under the Debt Group Selection list are re-selected to reflect the new Debt Source Group item(s) - they must be re-selected manually, this is not an automatic process.

The Cash Flow Worksheet

The top part of the Cash Flow worksheet contains a high level overview of the ALL Finance Structures, or only the selected finance structure as per the selection in the Finance worksheet. In addition, it provides a breakdown of the revenue, cost and equity and debt source elements that have been selected in the worksheets of the same names, which is based on the current finance structure selection in the finance worksheet. The following screen shows the top segment of the worksheet that is currently displaying a user-selectable **View Cycle**.

Cash Flow — **All 6 Structures with 20 Phases**

Project Length: 48 Months — Now viewing: 4 Quarters then Annual

	# of Months	3	3	3	3	12	12	12
	Period Ending	**Mar-12**	**Jun-12**	**Sep-12**	**Dec-12**	**Dec-13**	**Dec-14**	**Dec-15**
Totals for All Structures								
Revenue	**387,614,115**	51,000	-5,654	-64,537	12,955,448	102,036,492	164,841,366	107,800,000
Project Cost	**237,164,681**	26,222,727	19,221,361	49,028,457	50,954,145	91,538,494	199,496	0
All Finance Cost Incl. Mortgage(s)	**18,195,594**	211,435	2,139,866	2,193,654	2,337,899	6,905,486	3,938,785	468,469
Profit / Net for Period	**132,253,841**	**-26,383,162**	**-21,366,881**	**-51,286,648**	**-40,336,596**	**3,592,512**	**160,703,084**	**107,331,531**
Cumulative		-26,383,162	-47,750,043	-99,036,691	-139,373,287	-135,780,775	24,922,309	132,253,841

Project IRR	**34.0%**	Equity ROE	**238.7%**
Equity IRR	**61.2%**	Equity Multiple	**3.40**

File: 14 01 28 1200 VERSION 65 20 Phase - Multi Structure.wcfx
Location: C:\Users\david_000\Dropbox\AD - Excel Project (shared)\Excel Templates\

	# of Months	3	3	3	3	12	12	12
	Period Ending	**Mar-12**	**Jun-12**	**Sep-12**	**Dec-12**	**Dec-13**	**Dec-14**	**Dec-15**
Revenue for All Structures	**387,614,116**	**51,000**	**-5,654**	**-64,537**	**12,955,448**	**102,036,492**	**164,841,366**	**107,800,000**
Additional Revenue	**51,000**	**51,000**	**0**	**0**	**0**	**0**	**0**	**0**
Additional Revenue	51,000	51,000	0	0	0	0	0	0
Capitalized Rent	**247,613,157**	**0**	**0**	**0**	**12,500**	**0**	**142,600,657**	**105,000,000**
Capitalized Rent	250,850,657	0	0	0	0	0	145,850,657	105,000,000
Cap Rent Additions	9,791,667	0	0	0	41,667	0	9,750,000	0
Cap Rent Costs	-13,029,167	0	0	0	-29,167	0	-13,000,000	0
Cost Reducing Revenue items (-+)	**-5,511,052**	**0**	**-5,654**	**-64,537**	**-1,546,492**	**-493,293**	**-3,401,076**	**0**
Additional Revenue	-5,511,052	0	-5,654	-64,537	-1,546,492	-493,293	-3,401,076	0
Net Operating Income	**28,836,975**	**0**	**0**	**0**	**0**	**10,686,431**	**15,350,545**	**2,800,000**
Base Rental Income	29,226,975	0	0	0	0	10,883,097	15,543,878	2,800,000
Reimbursements	1,170,000	0	0	0	0	590,000	580,000	0
Operating Costs	-1,560,000	0	0	0	0	-786,667	-773,333	0
Unit Sales Additions and Costs	**-200,000**	**0**	**0**	**0**	**-31,417**	**-135,000**	**-33,583**	**0**
Sales Additions	350,000	0	0	0	57,167	247,500	45,333	0
Sales Costs	-550,000	0	0	0	-88,583	-382,500	-78,917	0
Unit Sales Deposits & Closings	**116,824,035**	**0**	**0**	**0**	**14,520,857**	**91,978,355**	**10,324,823**	**0**
Sales Deposits	2,000,000	0	0	0	2,000,000	0	0	0
Sales Closings	114,824,035	0	0	0	12,520,857	91,978,355	10,324,823	0

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Use the drop-down selector outlined in red to select from a number of different **View Cycles**. Notice that the # of Months and Period Ending headers are highlighted in yellow when the **View Cycle** is less than 12 months in the current column.

The Cash Flow worksheet contents are user-configurable in the following ways:

Revenue section:
The categories and the line items they contain are as defined in the Revenue worksheet.

Cost section:
This section contains only project cost items (as distinct from finance costs defined in the Finance Structures area of Developer). The categories and the line items they contain are as defined in the Cost worksheet.

Debt Sources section:
The categories and the line items they contain are as defined in the Debt worksheet.

Note: There are no totals provided for all selected categories, since totals are often inappropriate where, for example, selections have been made for contributions, repayments and profits.

Equity Sources section:
The categories and the line items they contain are as defined in the Equity worksheet. Totals for each category are displayed. Note that there are no totals provided for all selected categories, since totals are often inappropriate where, for example, selections have been made for contributions, repayments and profits. Providing totals for this example of selected items (and for many other combinations) could be misleading.

The Table Worksheets

There are seven worksheets in the template that provide tabular information on various aspects of any given ARGUS Developer project file that is downloaded. The tables include a significant amount of assumptions and calculated data that has been extracted from the FS_Data_Source worksheet and is provided for users who wish to develop their own analytical and informational reporting. The data is in simple list form, with a minimal amount of formatting and no Print Area definitions.

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The Table Worksheets are:

Structures	Data Table: all Finance Structures in Workbook (max 50)
Phases	Data Table: all Phases in Workbook (max 50)
CapAreas	Data Table: all Cap Area records in Workbook (max 250)
SalesAreas	Data Table: all Sales Area records in Workbook (max 250)
EquityTable	Data Table: all instances of Equity Activity in each Structure (max 100)
DebtTable	Data Table: all instances of Debt Activity in each Structure (max 100)
MtgTable	Data Table: all Mortgages in Workbook (max 50)

Limitations of the data sets are shown above, and are designed to accommodate an estimated 98%+ of all ARGUS Developer v6.5 projects.

A segment of a typical Table type Worksheet is shown below:

Phase Table (max 50)

			FS #	FSres	FS Name	# Phases	PHcntr	PHres	AD Ph#	Phase Name		Revenue	Rank	as % of Project	Cost	Rank	Pre Finance Profit	Rank	Pre Finance Profit as % of Cost	Rank	% of TPC	Total Sales
												387,564,115			237,044,419		150,519,696		100%			117,174,035
11	1	1		FS01_	Site A	6	1	PH01_	3	Site A - Retail 1	11	80,041,868	1	20.7%	48,348,793	1	31,693,076	1	21%	1	20%	0
12	2	1		FS01_	Site A	6	2	PH02_	4	Site A - Residential	12	19,350,000	6	5.0%	13,626,996	3	5,723,004	15	4%	15	6%	20,250,000
13	3	1		FS01_	Site A	6	3	PH03_	6	Site A - Res 3	13	19,600,000	5	5.1%	12,648,176	6	6,951,824	7	5%	7	5%	20,000,000
14	4	1		FS01_	Site A	6	4	PH04_	7	Site A - Res 4	14	19,600,000	5	5.1%	12,648,176	6	6,951,824	7	5%	7	5%	20,000,000
15	5	1		FS01_	Site A	6	5	PH05_	8	Site A - Land 1	15	9,000,000	19	2.3%	3,558,182	17	5,441,818	19	4%	19	2%	9,000,000
16	6	1		FS01_	Site A	6	6	PH06_	9	Site A - Land 2	16	9,000,000	19	2.3%	3,529,091	19	5,470,909	18	4%	18	1%	9,000,000
17	7	2		FS02_	Site B	1	1	PH01_	5	Site B - Res 2	17	20,472,559	3	5.3%	12,881,939	4	7,590,621	5	5%	5	5%	20,924,035
18	8	3		FS03_	Site C	3	1	PH01_	10	Site C - Land 3	18	9,000,000	19	2.3%	3,516,404	20	5,483,596	16	4%	16	1%	9,000,000
19	9	3		FS03_	Site C	3	2	PH02_	12	Site C - Retail 2	19	9,927,030	16	2.6%	5,801,273	16	4,125,757	20	3%	20	2%	0
20	10	3		FS03_	Site C	3	3	PH03_	14	Site C - Retail 4	20	30,550,058	2	7.9%	21,883,845	2	8,666,212	2	6%	2	9%	0
21	11	4		FS04_	Site D	4	1	PH01_	11	Site D - Land 4	21	9,000,000	19	2.3%	3,529,091	19	5,470,909	18	4%	18	1%	9,000,000
22	12	4		FS04_	Site D	4	2	PH02_	13	Site D - Retail 3	22	17,211,300	8	4.4%	8,927,138	15	8,284,164	4	6%	4	4%	0
23	13	4		FS04_	Site D	4	3	PH03_	15	Site D - Retail 5	23	17,211,300	8	4.4%	8,927,138	15	8,284,164	4	6%	4	4%	0
24	14	4		FS04_	Site D	4	4	PH04_	16	Site D - Office 1	24	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
25	15	5		FS05_	Site E	4	1	PH01_	17	Site E - Office 2	25	16,800,000	12	4.3%	11,043,636	9	5,756,364	13	4%	13	5%	0
26	16	5		FS05_	Site E	4	2	PH02_	18	Site E - Office 3	26	16,800,000	12	4.3%	11,072,727	7	5,727,273	14	4%	14	5%	0
27	17	5		FS05_	Site E	4	3	PH03_	19	Site E - Office 4	27	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
28	18	5		FS05_	Site E	4	4	PH04_	20	Site E - Office 5	28	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0
29	19	6		FS06_	Site F	2	1	PH01_	21	Site F - Office 6	29	16,800,000	12	4.3%	11,043,636	9	5,756,364	13	4%	13	5%	0
30	20	6		FS06_	Site F	2	2	PH02_	22	Site F - Retail 2	30	16,800,000	12	4.3%	11,014,545	12	5,785,455	10	4%	10	5%	0

The included data is quite extensive with the tables typically scrolling down and right.

Modification Guidelines

ARGUS Developer users will likely wish to use the Excel analysis workbooks as a basis for custom reports which may be updated to refresh the data from ARGUS Developer models. There are four methods to consider:

Option 1: do direct modifications to existing workbook (not recommended), as we cannot support templates that have been modified in any way.

Option 2: add new worksheets to existing file and reference existing content using standard Excel functionality.

Option 3: create a new Excel Workbook then reference existing content – this will create links that work well, but there are some caveats, such as changing the name/location of the file being referenced with the links. This requires a clear understanding of how links work within Excel.

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Option 4: use the series of data table worksheets that are included with the template to develop your own reports and analysis – note that this requires a relatively high level of Excel expertise.

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Analysis

Sensitivity Analysis

Sensitivity Analysis

The outcome of a project, measured in terms of Land Value, Profit, IRR, Return on Equity and so on, is highly dependent on the variables used to create it. Small changes in some variables can have a significant impact on the overall profitability of the scheme.

The Sensitivity Analysis module can highlight the impact of making changes to one or many variables. The effect of the changes is then clearly shown on the Key Performance Indicators.

There are many categories of variable, or data fields, available for sensitivity analysis, covering land cost, land residual targets, area schedules, interest and inflation rates, and time periods.

Up to six fields can be changed at the same time, and each field can be varied by up to fifteen different steps.

The table below shows the categories and fields available for inclusion in a Sensitivity Analysis.

Category	Fields
Construction	Number of Units Rate per square foot/meter Gross Unit Area Total Gross Area Cost per Unit Gross Cost Construction Starts per M/Q/6/Y
Construction Breakdown	Fixed Amount Related % Rate per Gross square foot/meter Rate per Additional square foot/meter Cost per Parking Space

	Cost per Unit
Land Value	Fixed Land Value Residual Land Value Residual Land Value for Finance Structures
Rates	Growth & Inflation Rates Interest Rates
Rent	Rate per square foot/meter Net Unit Area Total Net Area MRV per Unit Total MRV Capitalization Yield
Sales	Rate per square foot/meter Net Unit Area Total Net Area Sales Value per Unit Gross Sales Value
Sales Velocity	Initial Sales Sales Prior to Construction Sales During Construction Sales After Construction Balance of Sales per M/2M/Q/Y
Stepped Rent	Rate per square foot/meter MRV per Unit Total MRV

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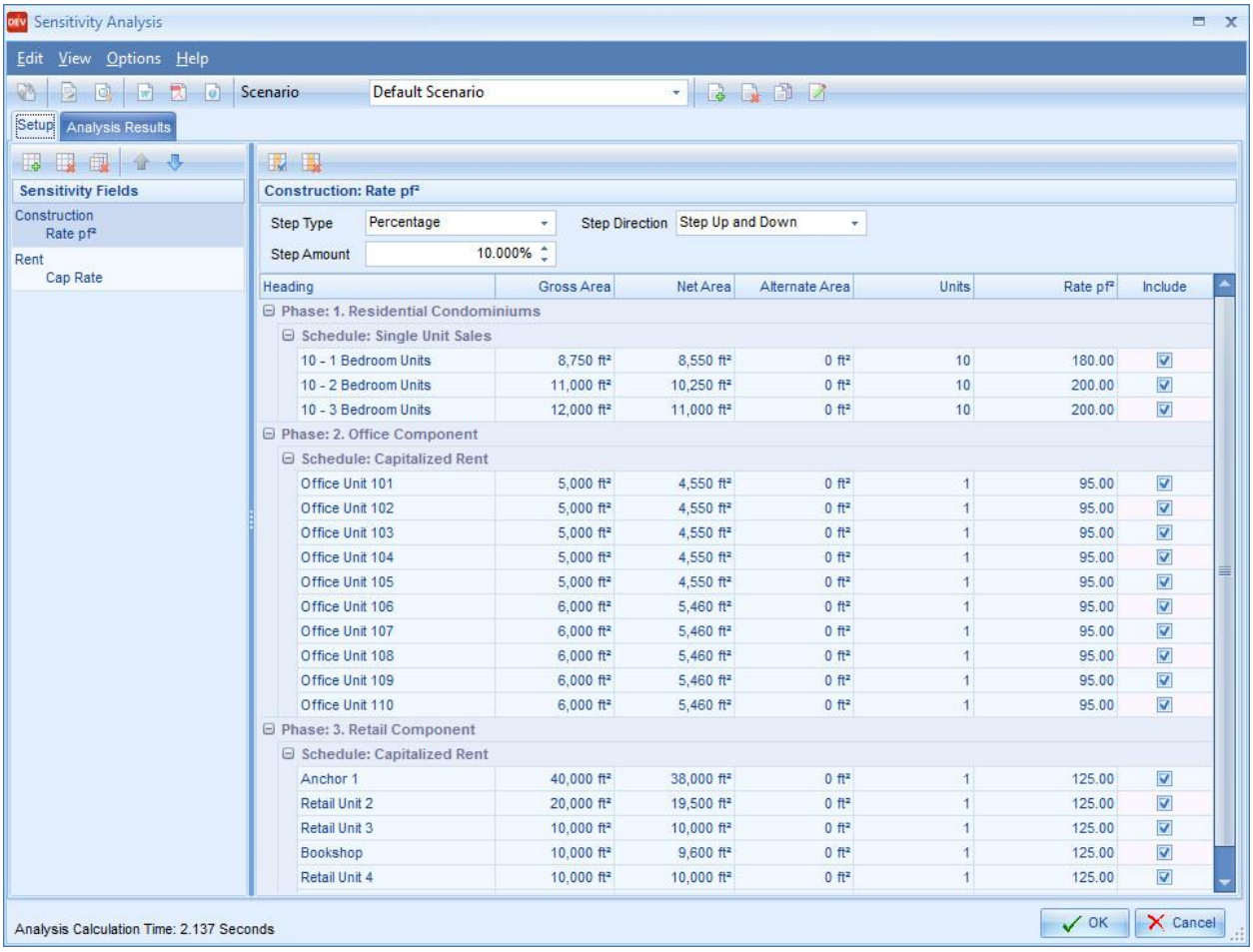
Time	Stage Duration
Operated Assets	Any Occupancy or Rates Table

To calculate the changes for each variable, the analysis takes steps up and down from its current value. This gives results for varying each input, including the mid-point where the value does not change.

To create a Sensitivity Analysis, select the **Sensitivity Analysis** button on the tool bar.

The screen is set out in three distinct areas:

- The tool bar which contains all the commands required to create and edit Sensitivity Analysis Scenarios
- The Field Category selector on the left side, which adds and removes fields to and from the analysis
- The Field Detail table on the right side, which controls the variable steps and includes, or excludes, occurrences of the field in, or from, the analysis



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Creating a Sensitivity Analysis

You create a Sensitivity Analysis by adding data fields to the Sensitivity fields list on the Setup tab.

To add a field, select the **Add Sensitivity Field** command. The Select Sensitivity Field window will be shown to enable you to add fields.

As you move the mouse cursor over each of the fields on the right side of this window, you will see information about the field in the Status box below. This will tell you, for example, why a particular field is not available for use in the analysis.

When the field has been added to the sensitivity analysis, you can then choose how the field will be varied in the calculations.

Number of Fields

There are six fields you can choose simultaneously in a single analysis scenario. There is no restriction on what type of fields they are. You could, if you wish, choose several **Time** fields, each calculating on a different development stage.

Step Type

The **Step Type** field offers four different ways in which to change each variable in the analysis. Each variable can be varied by either a fixed amount or by a percentage of the original value. When a step type is not applicable to the selected field, it will not be available for selection in the **Step Type** field.

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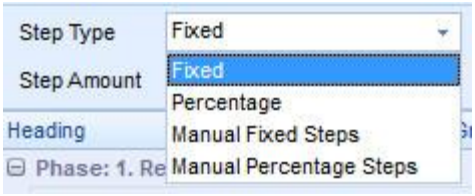

Step Type	Description
Fixed	The field's value will be changed by a fixed amount for each calculation step. E.g. changing a Rent Rate by a step of $5 per square foot.
Percentage	The field's value will be changed by a percentage of the original amount for each calculation step.
Manual Fixed Steps	The field's value will be changed by different fixed increments/decrements for each calculation step. You specify the fixed value for each step.
Manual Percentage Steps	The field's value will be changed by different percentage increments/decrements for each calculation step. You specify the percentage value for each step.

When changing a field whose value is expressed as a percentage, for example yields or interest rates, it is best practice to use fixed steps to ensure a variance of a number of basis points. Using the Percentage step type for these types of fields will calculate a percentage of a percentage.

Step Amount
The amount by which each field will be changed on each step of the analysis can be entered here. Choose either a fixed step, where each increment is a fixed amount, or a percentage step, which varies by a fixed percentage of the original amount.

Manual step types can be used to enter the exact amounts by which each field will be changed. In this way, it is easy to change a field's value by a different amount for some or for all calculation steps. The step values can be all negative, all positive, or a mix of both. This enables downwards, upwards, or both downwards and upwards sensitivities to be calculated for the field.

The manual step changes will be entered into a table that appears to the right of the field details. There are two tables, one for Fixed Manual Steps and another for Percentage Manual Steps. Only one will be shown at a time.

Each of the amounts that are entered into the table will be used to calculate variations from the original value. They are not increments on the previous step, unlike the Fixed or Percentage step types. If you wanted, for example, to change an field by an amount of +2 for each step, you must follow the pattern of entries in the Correct column in the table below.

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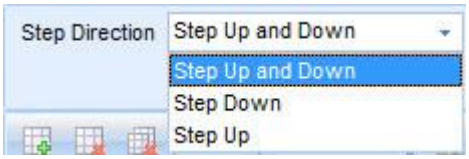
Correct	Incorrect
2	2
4	2
6	2
8	2

Step Direction

The direction in which each variable is changed has been expanded in Version 5 to include Up Only, Down Only, or Up and Down. Prior to Version 5, the program allowed only Up and Down steps.

Step Direction	Description
Up Only	Increases the original value by the step amount for each step of the Analysis
Down Only	Decreases the original value by the step amount for each step of the Analysis
Both Up and Down	Decreases the original value for the first part of the Analysis and then increases the original value for the remainder of the Analysis

The default selection when you add a new field is Up and Down. To change the step direction, make a selection from the **Step Direction** field:



Number of Steps

Up to fifteen steps can be used to vary a field in the analysis. The default setting for the number of steps when you start a new project is 5. You can increase the number of steps on the Scenario Options window which you can view by clicking on the Options menu and selecting **Scenario** options. Change the **Step Count** fields to a value between 1 and 15.

Including fields

When you have chosen the field type that you want to sensitize, you can choose which particular occurrences of that field will be included in the analysis. For example, you might want to sensitize on the residential apartments, but leave out the apartments in one phase because they have all been pre-sold.

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You include a field by checking the **Include** option against the field heading.

The commands **Include All** or **Exclude All** can be used to quickly select or deselect all areas and/or phases to be used in the sensitivity analysis.

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Additional Options

Additional options are available to increase the flexibility of the analysis component, and to decrease the number of data fields that need to be filled in. You can access the options using the Scenario Options window which you can find on the Options menu.

Allow per Field Step Control

If you would like to control the number of steps that will be used in calculating each of the fields in the analysis, check this option. When you close the options window, a new field will be shown on the Setup tab that will allow you to enter the number of steps. You may choose to vary one field with, say, five steps, while another field will be varied by ten steps.

The default is for this option to be OFF.

Include New Items

Most projects will change with respect to the number of floor space definitions, phases, interest rates etc. as time progresses. If you make changes to the project definition after you have set up the sensitivity analysis, there is a chance that you could forget to add any new fields to the analysis.

To force Developer to automatically update the sensitivity analysis when new field items are added to the project, set this option to *ON*.

To control how this works on a field by field basis, set the **Allow per Field Include New Items Control** to *ON*.

Allow per Field Include New Items Control
If you want to control which sensitivity fields will have new items automatically added to them, set this option to *On*

This option works only on the fields that are included in the sensitivity analysis at the time of adding items to the project.

The default setting for this option is *OFF*.

Include Infrastructure Phase Items
If you have set up any infrastructure cost phases using the option *Infrastructure Cost Phase* in the Time Scale and Phasing area, you may include them in the sensitivity analysis. The Setup Tab will show these phases in the field selection lists for any of the fields where phase data is presented for selection. The default setting for this option is *ON*.

Step Count

The **Step Count** field is used to set the default number of steps to be used in the calculations when you want the same number of steps for all fields in the analysis. The default setting for this field is five steps.

Lock Gross : Net Ratio

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This option is used to maintain a constant efficiency for an area record by locking the gross to net ratio when either the **Gross** or the **Net** fields are being sensitized. This option will override the individual setting on each of the area records included in the analysis.

Time Scale Options

These options determine what will happen to the data when the **Time** field is included in the sensitivity analysis. It tells Developer how to manipulate data distributions when project timings change.

The three types of timing that are included are:

- Specific Dates
- Specific Periods
- Items Relative to Project Dates (i.e. Project Start Date)

When running the analysis, you can elect to

- Keep the items at their specific dates, periods, or project offsets
- Or
- Adjust the items to keep them relative to the rest of the phase

The second of these options is selected by default so that items are automatically moved with the varying time scale.

See Also

Time Scale Validation

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  Or

- Adjust the items to keep them relative to the rest of the phase

The second of these options is selected by default so that items are automatically moved with the varying time scale.

See Also

Time Scale Validation

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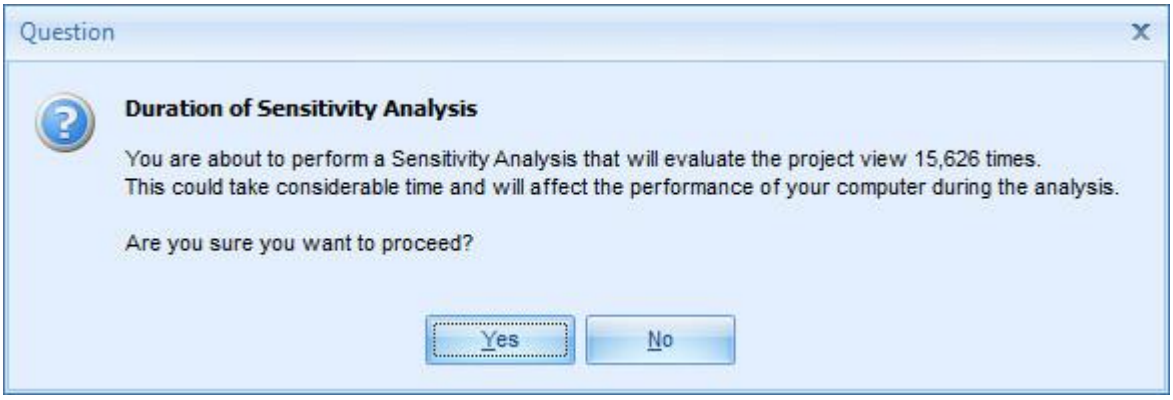
Running the Analysis

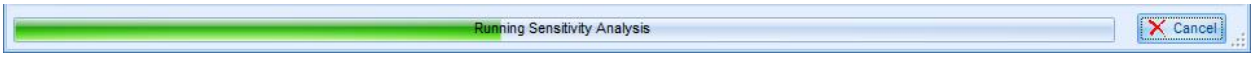
After the Pre-Select has been passed, the Sensitivity Analysis can be started by selecting the Analysis Results tab. Developer will now calculate a separate valuation for each of the field and step combinations.

Example: A three field analysis with each field varied by five steps, will produce 5 x 5 x 5 = 125 different valuations.

For a sensitivity analysis with a large number of variables or steps, the calculations could take a considerable time. Before Developer starts the calculations, a warning window will be shown to inform you of this possibility. You can choose to stop the analysis at this point and change the number of fields or steps, or you may continue.



While the analysis is calculating the results, a progress meter is displayed at the bottom of the screen, with a estimated duration for the analysis. You can stop calculation at any time by clicking on the **Cancel** button. If you do cancel the calculations, the program can display a partial set of results.



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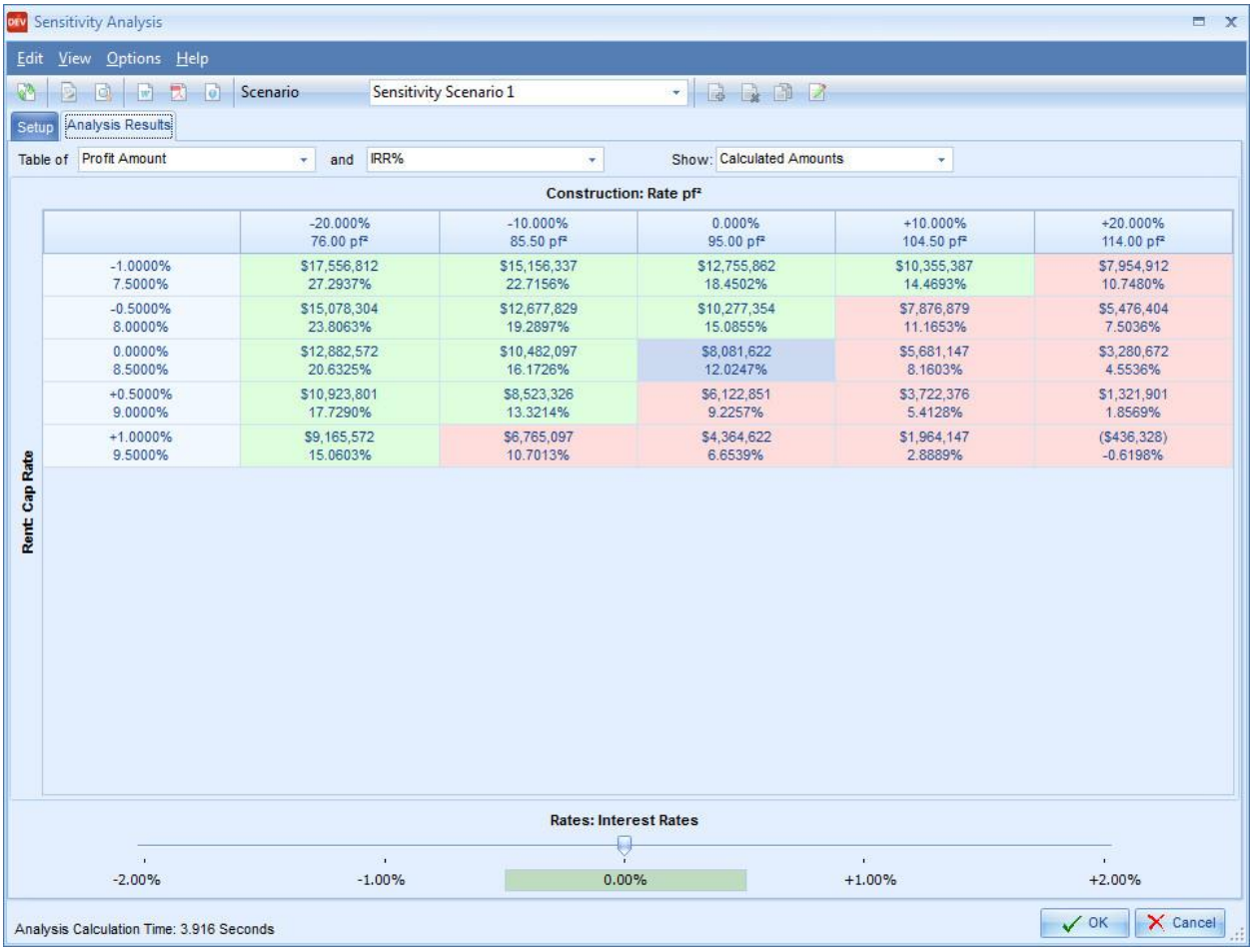
Viewing the Analysis

When the analysis has completed all calculations, the results are displayed on the Analysis Results tab. The Analysis Results Table shows the results of the separate valuations.



The result cells are color coded as follows:

- Dark Green = Current Project Result - No change in any of the variables.
- Light Green = Results are better than base case.
- Light Red = Results are worse than base case.
- White = Results are same as base case.

To display the result cells with no color coding. in a plain white background, uncheck the Color Result Cells menu option on the Options menu. To display the results for monetary amounts without any currency formatting characters, uncheck the Format Result Cells menu option on the Options menu. Developer uses the amount on the top row of the cell as a basis for comparing the cell values against the base values when coloring the cells.

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Selecting Key Performance Indicators

In the Analysis Results Table, it is possible to display two Key Performance Indicators (KPIs) in each cell. The Key Performance Indicators are selected using the two drop-down lists at the top of the table:

The first drop-down field selects the KPI to be shown on the top row of the cell, the next drop-down field selects the KPI to be shown on the bottom row of the cell.

The list of KPIs available for selection in both drop-down lists is shown below:

- Development Yield%
- Equity IRR% for each Equity source
- Gross Development Value
- Land Cost
- Net Development Value
- Profit Amount
- Profit Erosion
- Profit on Cost%
- Profit on GDV%
- Profit on NDV%
- Project Equity IRR%
- Project IRR%
- Project Return on Equity%
- Rent Cover
- Return on Equity% for each Equity source
- Total Interest and Loan Fees
- Total Interest (including Mortgage)

Analysis Cell View

When you are viewing the analysis results table, you will normally see the calculated values for each of the KPIs. You can if you wish, choose to look at the differences between the starting base value and each of the calculated results. In this way you can get an extra insight into how changes in the sensitivity fields produce variations in the project results. The variance between the result in each cell and the base value can be displayed as either a fixed difference or a percentage difference.

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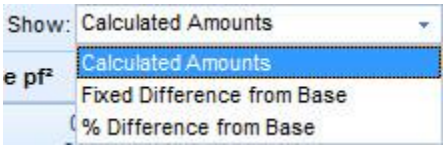
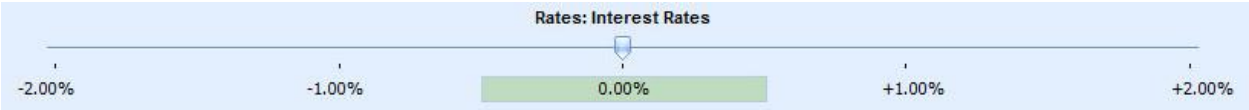


Viewing Three or More Fields

When there are more than two field types included in a Sensitivity Analysis, the third and subsequent fields will be represented by a slider at the bottom of the table. To view the results for the different steps, drag the slider's pointer to the left or right. As this happens, the results are immediately updated. The base value is always indicated by an outlined, colored box underneath the slider.



Printing the Analysis

You can print a report that contains the analysis results table and all the assumptions by clicking on either the **Preview** or **Print** commands. If the analysis has not yet been run, the results will be calculated before the report is generated.

Note: If you want to print additional result variables, change the performance measures displayed in the Analysis Results screen. Then reprint the Sensitivity Analysis.

The analysis results table can also be exported into MS Word by clicking on the **Print to Word Processor** command.

You can create an Acrobat PDF file of the analysis results table by clicking on the **Print to Adobe Acrobat PDF** command.

Alternatively, the analysis results table can be saved as an HTML file by clicking onto the **Print to Web Page (HTML)** command.

Updating the Project

The sensitivity calculations and results are held separately from the main project. However, you can force the project to adopt the variables that produce any of the measures shown in the analysis results table.

The project fields will be changed permanently and the project recalculated to reflect the Land Value, Profit% (and so on) shown in the Sensitivity Results table.

To update the project from the analysis, move to the cell whose results you want to adopt, then click on the **Update** command on the Toolbar.

You may also double-click in the result cell to update the project. You will be asked to confirm that you want to update the project before the update takes place.

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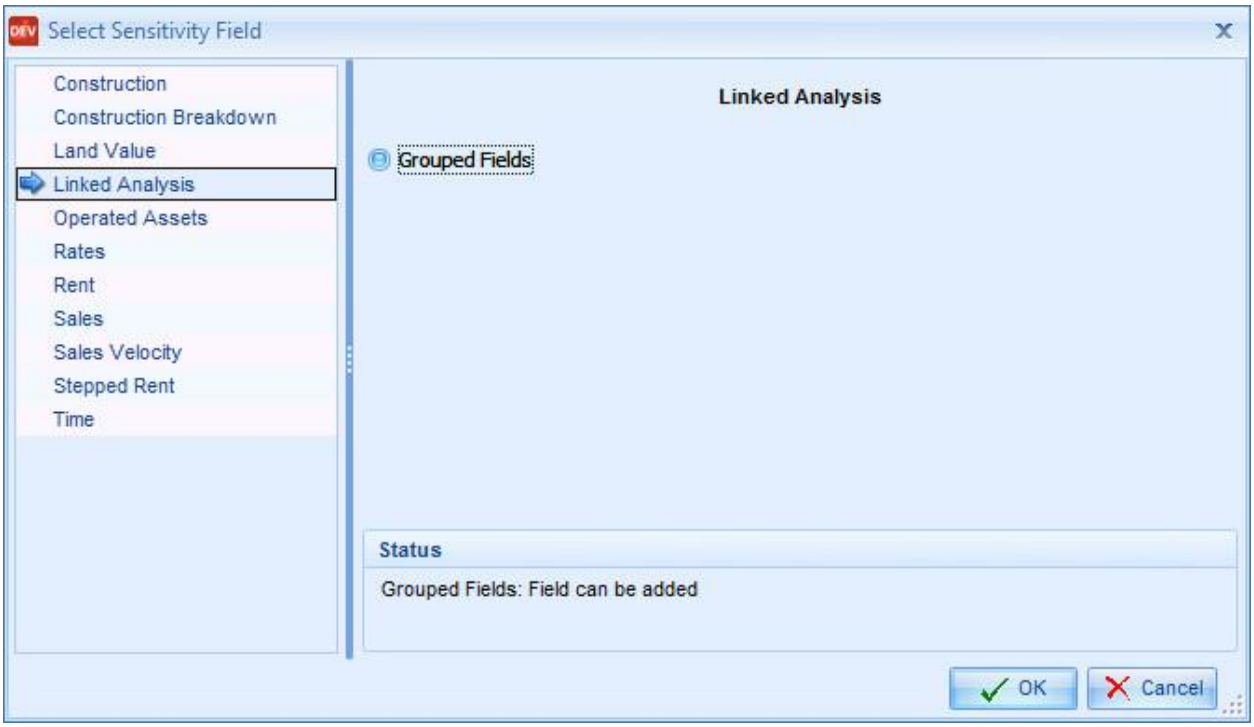
Linked Analysis - Grouped Fields

If you want to include two different fields on the same row, column or slider on the Analysis Results Tab, the **Linked Analysis** option is available. You would use this when the fields belong to similar categories - for example, Rent Rate and Stepped Rent Rate and you want different steps on each field. The effect is to reduce the number of different variable slider controls shown on the Analysis Results tab.



When the **Grouped** Fields have been selected, you may add up to six individual fields to it.

For each of the fields added to the **Grouped** Fields, individual step types, step rates, and step direction are available.

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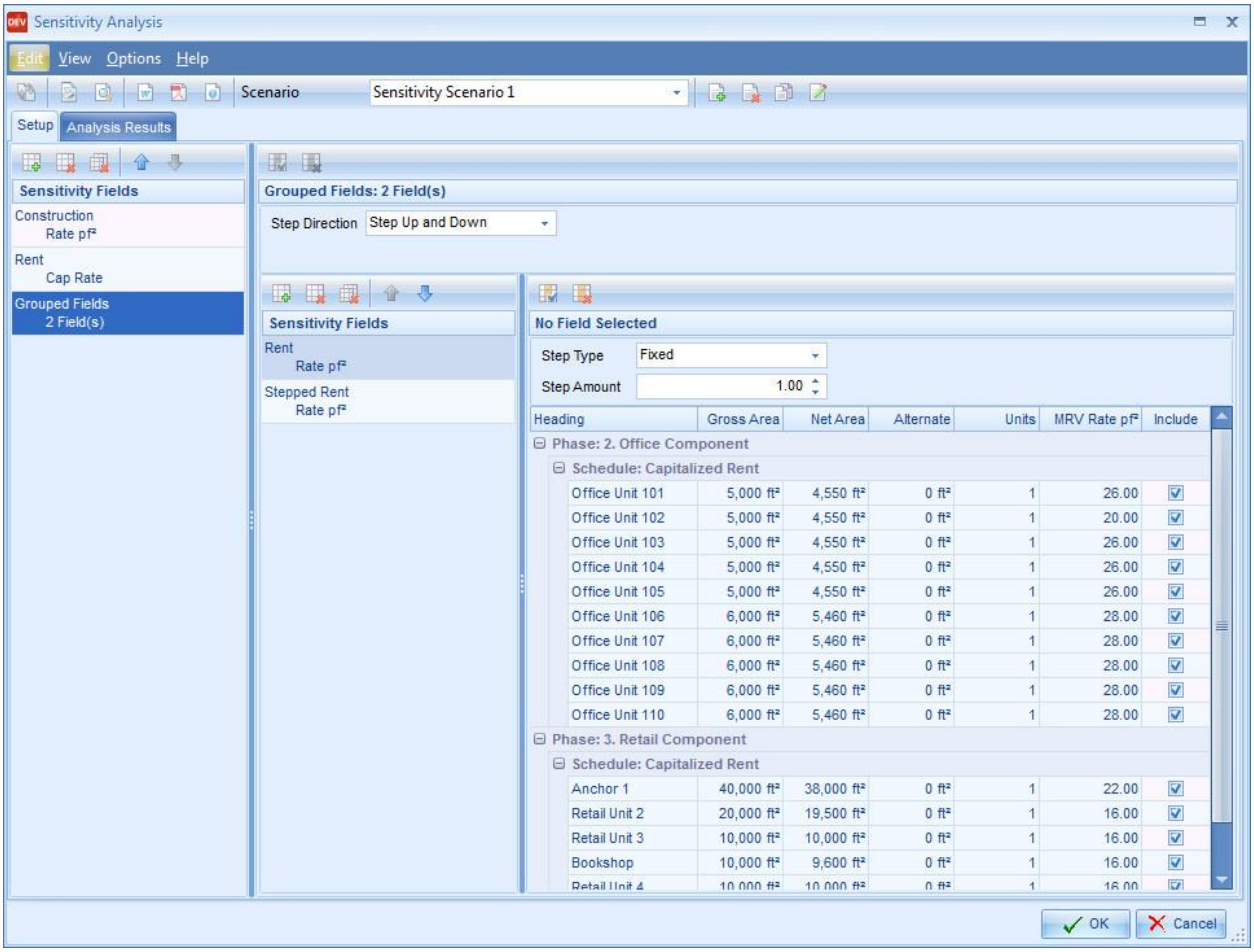

When the Sensitivity Analysis has been calculated, the Analysis Results tab will show the results aggregated and displayed as "Grouped."

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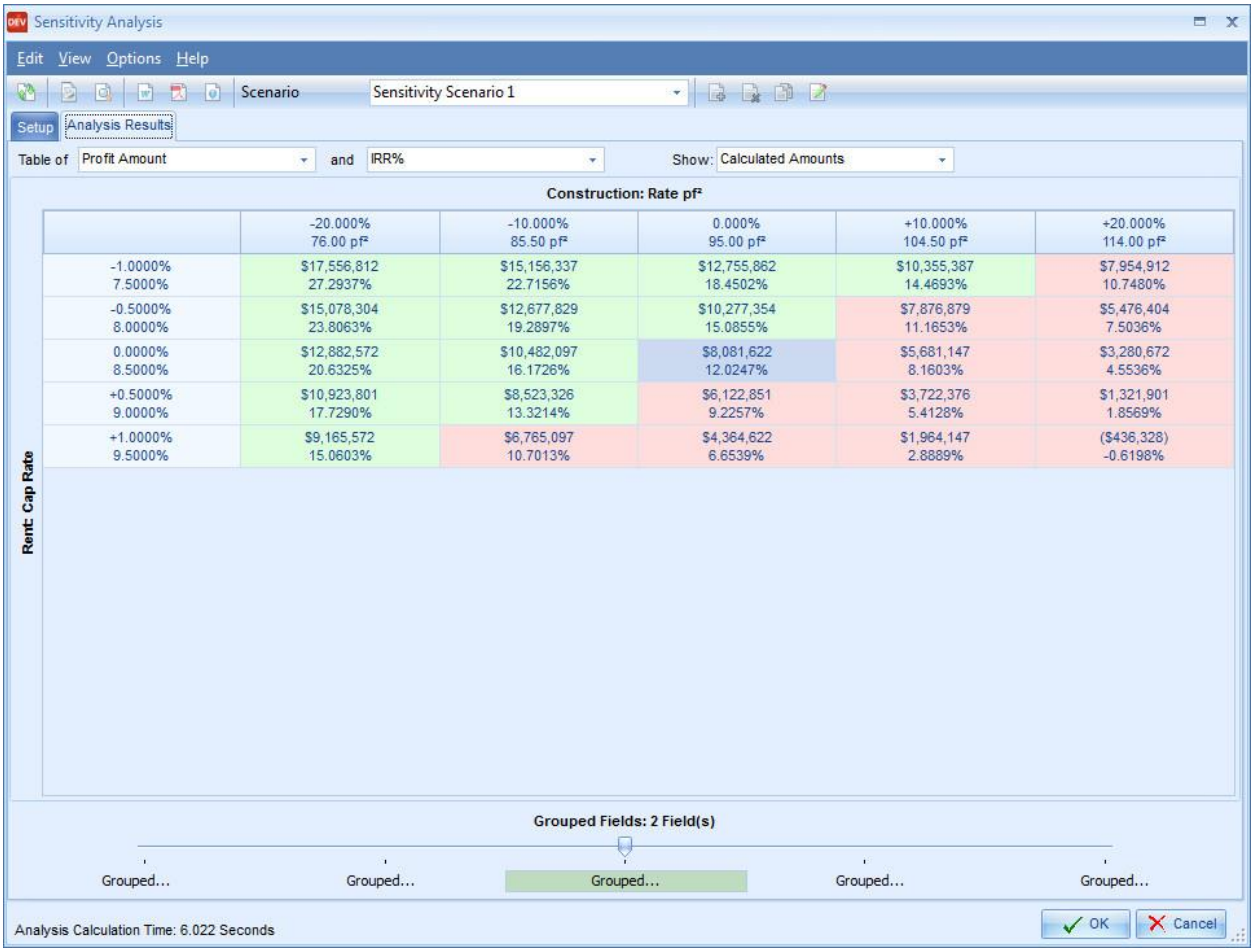
Sensitivity Analysis
Edit View Options Help
Scenario
Sensitivity Scenario 1
Setup
Analysis Results
Table of Profit Amount and IRR% Show: Calculated Amounts
Construction: Rate pf²
Rent: Cap Rate
-20.000% 76.00 pf² | -10.000% 85.50 pf² | 0.000% 95.00 pf² | +10.000% 104.50 pf² | +20.000% 114.00 pf²
-1.0000% 7.5000% | $17,556,812 27.2937% | $15,156,337 22.7156% | $12,755,862 18.4502% | $10,355,387 14.4693% | $7,954,912 10.7480%
-0.5000% 8.0000% | $15,078,304 23.8063% | $12,677,829 19.2897% | $10,277,354 15.0855% | $7,876,879 11.1653% | $5,476,404 7.5036%
0.0000% 8.5000% | $12,882,572 20.6325% | $10,482,097 16.1726% | $8,081,622 12.0247% | $5,681,147 8.1603% | $3,280,672 4.5536%
+0.5000% 9.0000% | $10,923,801 17.7290% | $8,523,326 13.3214% | $6,122,851 9.2257% | $3,722,376 5.4128% | $1,321,901 1.8569%
+1.0000% 9.5000% | $9,165,572 15.0603% | $6,765,097 10.7013% | $4,364,622 6.6539% | $1,964,147 2.8889% | ($436,328) -0.6198%
Grouped Fields: 2 Field(s)
Grouped... Grouped... Grouped... Grouped... Grouped...
Analysis Calculation Time: 6.022 Seconds
OK Cancel

Analysis Scenarios

You can create an unlimited number of scenarios for sensitivity analysis within the same project file. This makes it easier to run several sensitivity analyses on the same project multiple times, without having to set up the different variables or maintain different files.

Each scenario holds a complete set of assumptions and settings for a sensitivity analysis. Each scenario is independent of all other scenarios.

Adding a Scenario

You can add scenarios using the **Add Scenario** command on the tool bar.

When a new scenario is added, the Scenario Name window is shown so that you may enter a name for the scenario. You must enter a unique name here and a check will be made on the name to ensure its uniqueness. If the name is not unique, you will be asked to enter another

When adding a new scenario, you would start on a blank Sensitivity Analysis screen, in the same way that you would when entering the Sensitivity Analysis screen for the first time. You can enter in all of the variables for your sensitivity analysis in the normal way.

Deleting a Scenario

You can delete scenarios using the **Delete Scenario** command on the tool bar.

Copying a Scenario

You can make a copy of a sensitivity scenario by clicking on the **Copy Scenario** command on the tool bar, making it easy to create several scenarios that have variations on the same assumptions.

Renaming a Scenario

You can change the name of any scenario by using the **Rename Scenario** command on the tool bar. A window identical to the one used when you first create a scenario will be shown, into which you must enter a unique name. A check will be made on the name to ensure its uniqueness. If the name is not unique, you will be asked to enter another.

Switching Between Scenarios

To change the assumptions or to calculate the results of an analysis for a Scenario, you can use the drop-down **Scenario** selector on the tool bar. You can then switch between the scenarios and then work with the Setup Tab or the Analysis Results Tab.

If you switch Scenarios while the Analysis Results tab is selected, the results of the analysis for the new selection are calculated and displayed automatically.

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Goal Seeking

Goal Seeking

You can obtain a residual value for many fields other than Land Value by selecting a field in Definition, or a row in the Cashflow, and selecting the **Goal Seek** command in the Distribution & Analysis group on the Home tab.
The goal seek function is available in many place in the program: Definition Screen, Capitalized Rent, Unit Sales, Additional Costs, Additional Revenues, and Additional Related Items.

To run a goal seek

1. Select the **Goal Seek** command
2. Enter the determinants target type and target value
3. Click the **OK** button

In some cases, ARGUS Developer will be unable to produce a result. A warning will be displayed and the data returned to its original state.

If a related percentage fee is the subject of the spot residual calculation, and its value drops below zero, a warning will be displayed and the fee percentage returned to its original state.

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Goal Seeking Based on Area

Goal seeking can be performed from within the area schedules for capitalized rent or unit sales by clicking on the **Goal Seek** command. The goal seek function can be used to determine build costs, rents, or sales values to fine tune a development.

Goal seeking in an area field forces the program to recalculate the area record and update the cash flow. If the resultant value is either negative or does not achieve the determinants set above, the current area and the cash flow are returned to their original state.

The fields available for goal seeking within the area schedules are shown in the table below:

Building	Rent	Sales
Gross Area	Net Area	Net Area
Build Rate	Annual Rent Rate (MRV rate pf^2/pm^2 p.a.)	Sales Rate
Cost/Unit	Annual Rent/Unit	Sales/Unit
Gross Cost	Annual Gross Rent	Gross Sales
	Yield %	
	Zone A Rate	
	Leasehold Gearing %	
	Manual Capital Value	

To goal seek in an area field

1. Click into the selected field and either click onto the **Goal Seek** command or press the F6 key.
2. Enter the target type and value and click the **OK** button.

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Goal Seeking Based on Cash Flow

Goal seeking can be performed in the cash flow across a range of different types of item: fixed amounts, percentage-related fees and area-based amounts.

If you choose an area-based row, the program will update the contents of the area record automatically.

If you choose an MRV row, the capitalized rent will be updated automatically.

If you chose a capitalized rent row, the program may adjust either the yield or the MRV rate to arrive at the target value. To specify which variable is recalculated when the capital value is modified, select either *Recalculate the Yield* or *Recalculate the Rent Rate* or *Market Rental Value* on the Receipts tab of Assumptions for Calculation.

Note: You will not be able to goal seek on rent free costs. These are calculated from an integral number of months and the goal seek function returns a non-integral value. Neither will you be able to goal seek on rents when tenants' rental income streams are generated in the cash flow.

To goal seek on a cash flow row

1. Click into a cell in the selected row, and select the **Goal Seek** command from the Distribution & Analysis group on the Home tab, or right-click within a cell and select **Goal Seek** from the popup menu. Alternatively, you can press the F6 key.
2. Enter the target type and value and click the **OK** button.

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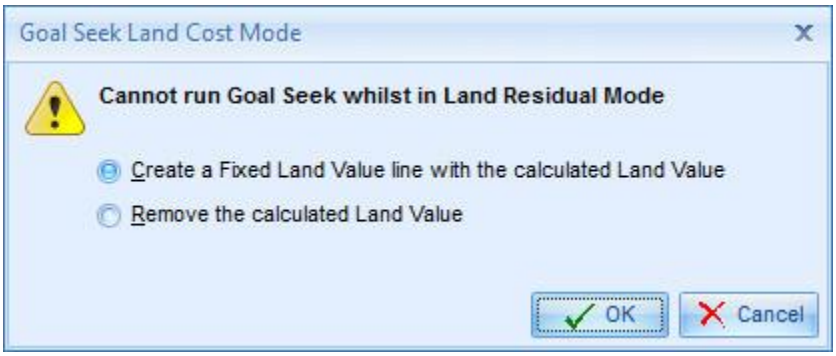
Problems with Goal Seeking

If you select the goal seek command when the program's residual target mode is set to automatically calculate the land value, a warning will be shown:



To continue with the goal seek using the existing land value:

1. Select **Create a Fixed Land Value line with the calculated Land Value** option
2. Click the **OK** button

To continue with the goal seek while removing the existing land value:

1. Select the *Remove the calculated Land Value* option
2. Click the **OK** button

By selecting one of the options and clicking the **OK** button, the program will switch automatically to a Fixed Land Residual mode.

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Analysis Charts

The analysis charts function is a useful tool that shows you a snapshot of the entire phase/phase group selection in a variety of charts.

To view Analysis Charts

1. Select the **Charts** command from the Distribution & Analysis group on the Home tab.
2. Select the chart type from the **Chart Type** drop-down box.

Cost/Revenue Analysis

This chart shows individual bars to represent revenues, costs and interest/fees. Two line series are added to show the net cash flow and cumulative net cash Flow positions across time.

Project Performance Analysis

This chart shows the IRR and Return on Equity positions across time. The Peak Finance triangle shows the period where the Peak Financing is greatest.

Note: that the Return on equity will be meaningful only when Structured Finance is used and a Merged phase view is selected.

Cost Breakdown

The Cost Breakdown pie chart shows the proportions of each cost type to the total costs, including interest and fees.

Net Operating Income
This chart shows each component of operating income across the project time frame.

Occupied Area Over Time
This chart shows the occupied Gross and Net areas across the project time frame. The data is taken from the tenant leases entered in the capitalized rent screen.

Total Area Over Time
This chart shows the total Gross and Net areas available over the project time frame. The data is taken from the tenant leases entered in the capitalized rent screen.

Occupied and Total Area over Time
This is a composite of the Occupied and total area over time charts.

Running Yield on Cost
This chart shows how the profit on cost performance measure changes across the project time frame. The cumulative costs and revenues are assessed at each month to calculate the running yield.

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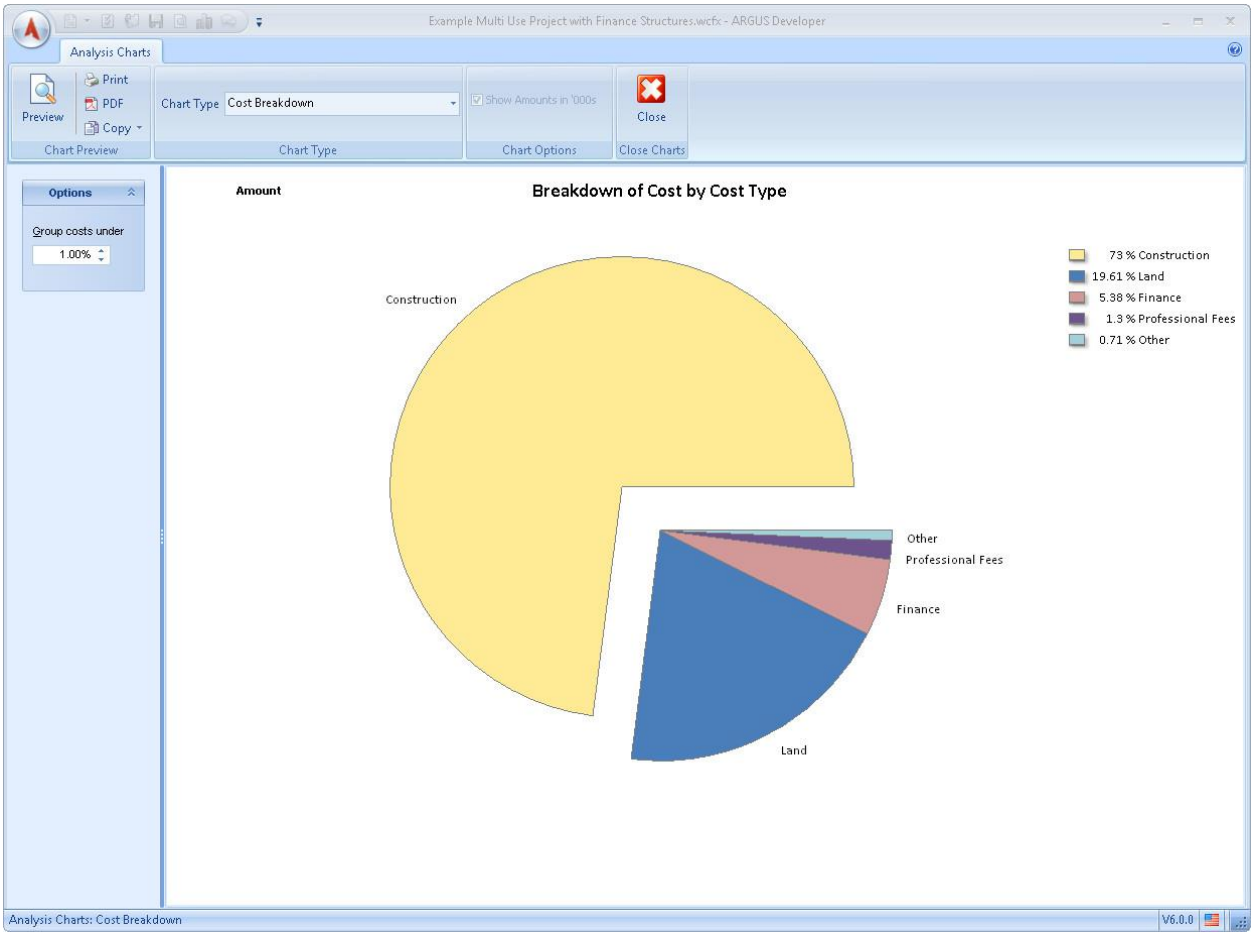

In the cost breakdown graph, you can change the graph display by using the **Group Items That Are Less Than** control to change the threshold sensitivity.

If you select the **Revenue against Expenditure** option in the drop-down, additional controls will become available:

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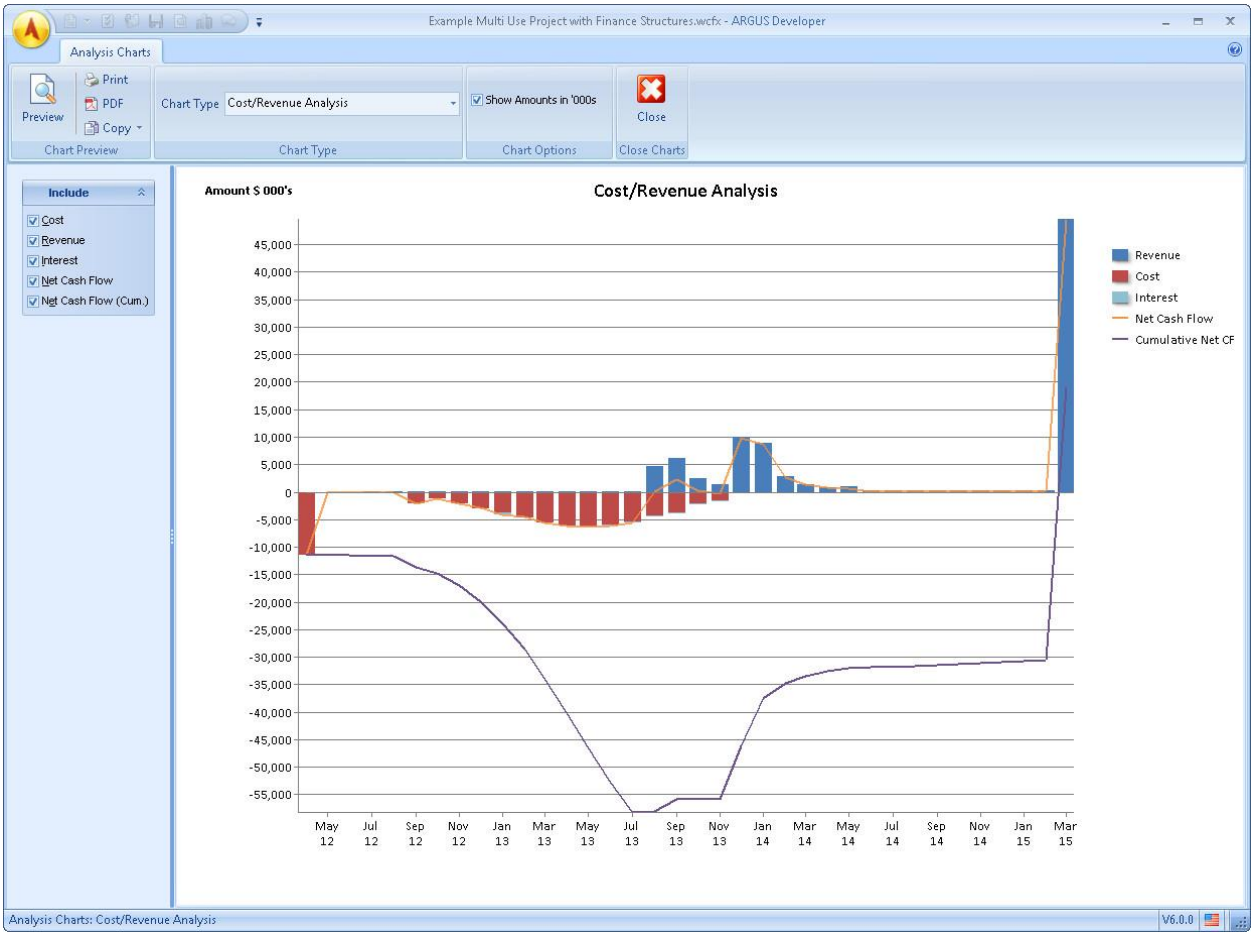

Select the appropriate options to add or remove different value series components in the chart.

To preview or print a chart

1. Select the **Preview** or **Print** commands in the Chart Preview group on the Home tab.

To copy the chart to the clipboard

1. Select the **Copy** command in the Chart Preview group on the Home tab.
2. From the drop-down, select:
   - Copy as Bitmap to create a bitmap file.
   - Copy as Windows Metafile to create a file that can be pasted as an editable object in other applications.

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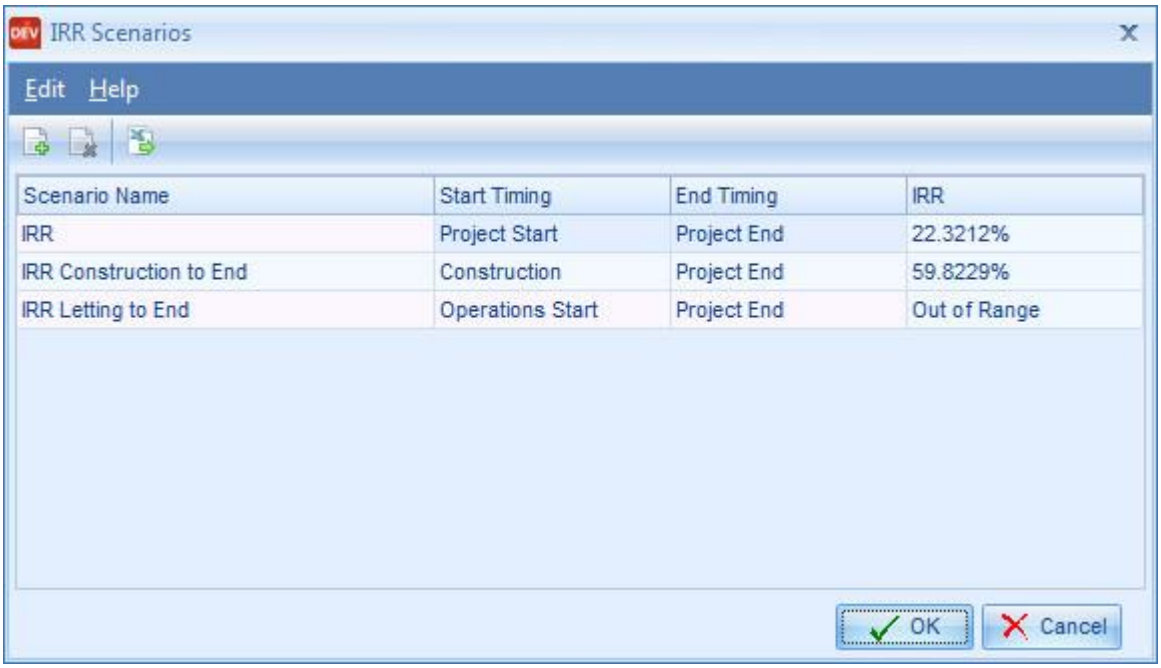
IRR Scenarios

The default setting for the calculation of the IRR for any selected phase in ARGUS Developer takes account of all inflows and outflows from the project or phase start date to the project/phase end date.

It is sometimes useful in projects using basic finance (Interest Sets) to analyze the IRR over different time frames within the project/phase time scale.

To define IRR Scenarios, select **IRR Scenarios** from the Project menu.



To add an IRR Scenario

1. Click the **Add New IRR Scenario** command on the tool bar.
2. Enter a Scenario name
3. In the Start Timing box, click the ellipsis to choose a start date.
4. In the End Timing box, click the ellipsis to choose an end date.

The IRR is calculated automatically when each date is changed.

To delete an IRR Scenario

1. Click the **Delete IRR Scenario** command on the tool bar.

To display the additional IRRs

1. Open the Preferences window by selecting the **ARGUS Button > Preferences** command.
2. Select the **IRR Scenario Dates** option in the Show Performance Measures group box.

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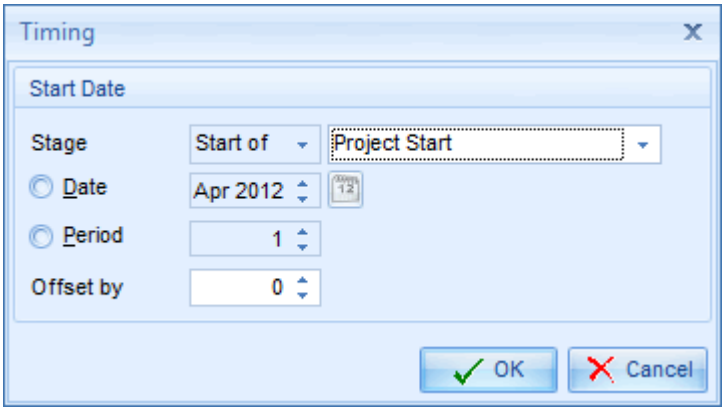
The IRRs and IRR Dates are displayed in the Performance Measures section of the Summary report.

Changing the Start and End Timing

The Start Timing and End Timing for the IRR Scenario can be changed using the Timing window.

Start and End dates can be defined by reference to a development stage, an offset in months from a stage, a specific period or specific date.

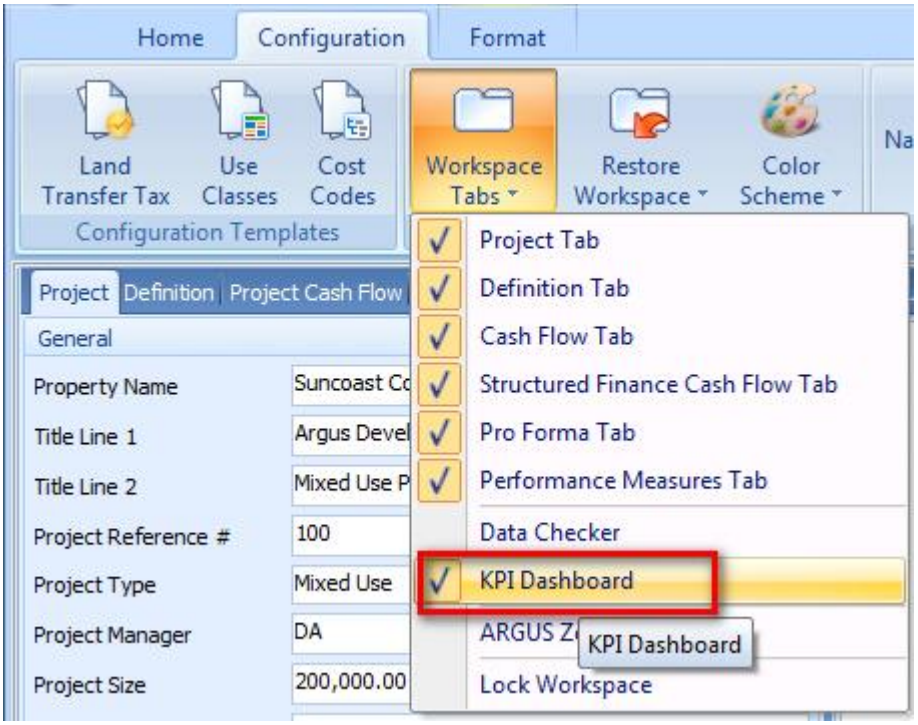


Key Performance Indicators

Key Performance Indicators

The Key Performance Indicators (KPI) 'dashboard' component of Argus Developer is a replacement for the *Results Bar* in previous versions. It offers significantly improved functionality, including the ability to create user-defined templates.

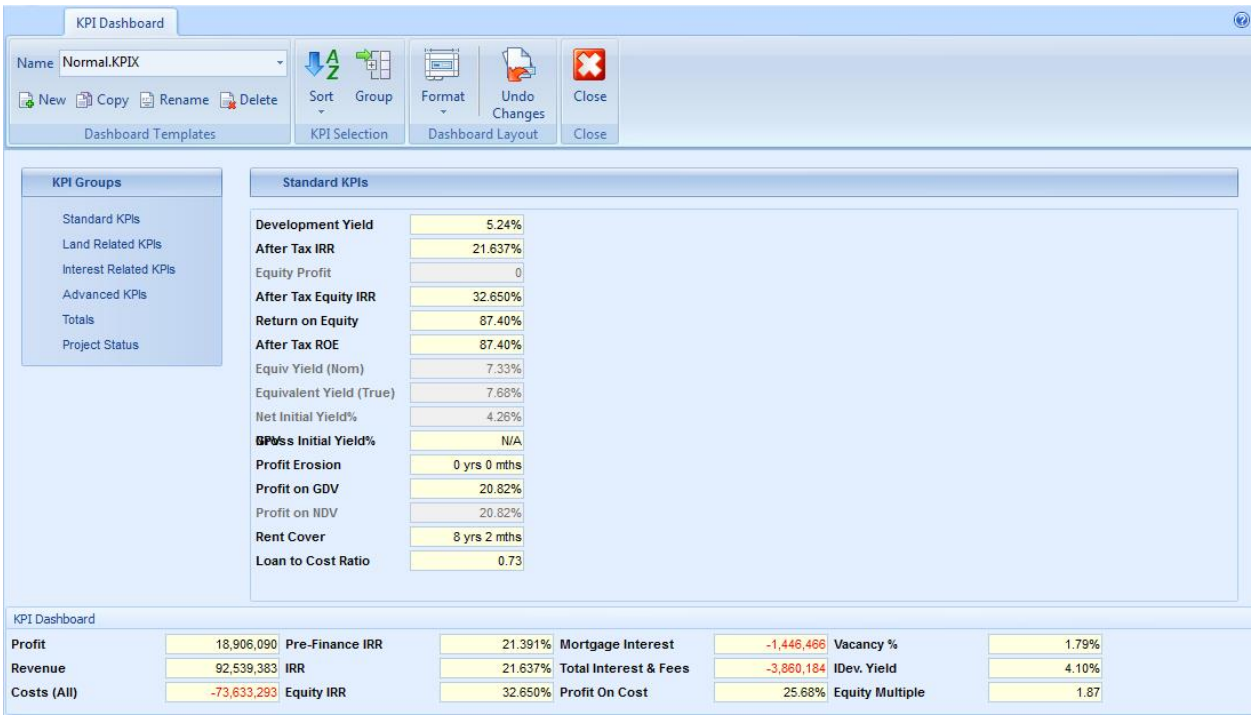
The KPI dashboard is part of the Argus Developer workspace and can be selected or hidden from the **Workspace Tabs** command in the Configuration ribbon, as shown in the following image:



The controls in the KPI Dashboard group, which appears on the Configuration ribbon, allow the user to select the dashboard to display or to create a new one.

Name: Use this drop-down list to select which KPI Dashboard to display. The default dashboard is named *Normal.KPIX*.

Dashboard Template: Click this button to display the main controls for creating and updating user-defined KPI Dashboards. The following image displays the main KPI workspace:



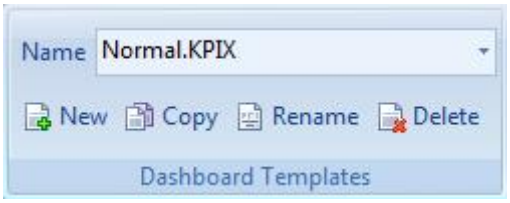
This workspace includes the command ribbon, available KPI Groups to work with, and in the configuration shown, the KPI Dashboard itself at the bottom of the screen. The KPI Dashboard is a standard Workspace tab; therefore, it can be repositioned in the same manner as other Workspace tabs.

Editing the Dashboard

Notice that the KPI dashboard itself appears along the bottom of the screen view above. To add an individual item to a dashboard template, simply click and drag it from the list of All KPIs into the KPI Dashboard. To remove an item, click and drag it back into the All KPIs list. Your changes are automatically saved when you click the **Close** command from the ribbon bar.

Configuring the Dashboard

The commands used to configure each dashboard template are described below, proceeding from left to right across the ribbon:



The Dashboard Templates Group

Name: Use this drop-down list to select the dashboard template to display.

New: Creates a new, blank KPI template, which is given the name *KPILayout1.kpix* by default.

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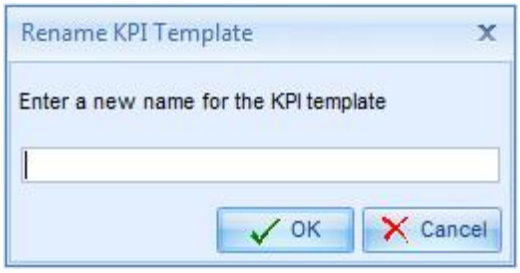
Copy: Creates a copy of the selected KPI Template.

Rename: Allows you to rename the selected KPI Template, which appears in the Name selection window. This is accomplished by a renaming window as shown following:



Delete: Delete the selected KPI Template, which appears in the Name selection window. You will be prompted to confirm this action before the template is deleted.

The KPI Selection Group

Sort: Provides options for *Sort by Caption (alphabetical)*, *Sort by Natural Order*, or *Do Not Sort*.

Group: Alternately displays all KPIs or just the ones associated with the active group. The image below shows the screen layout with all KPIs displayed:

The Dashboard Layout Group

Format: Provides three options for the on-screen size of KPI items: *Autofit Width to Short Caption*, *Autofit Width to Long Caption*, and *Default Width*. Short captions are abbreviated from the long caption format.

Undo Changes: Undoes any changes made to the active template.

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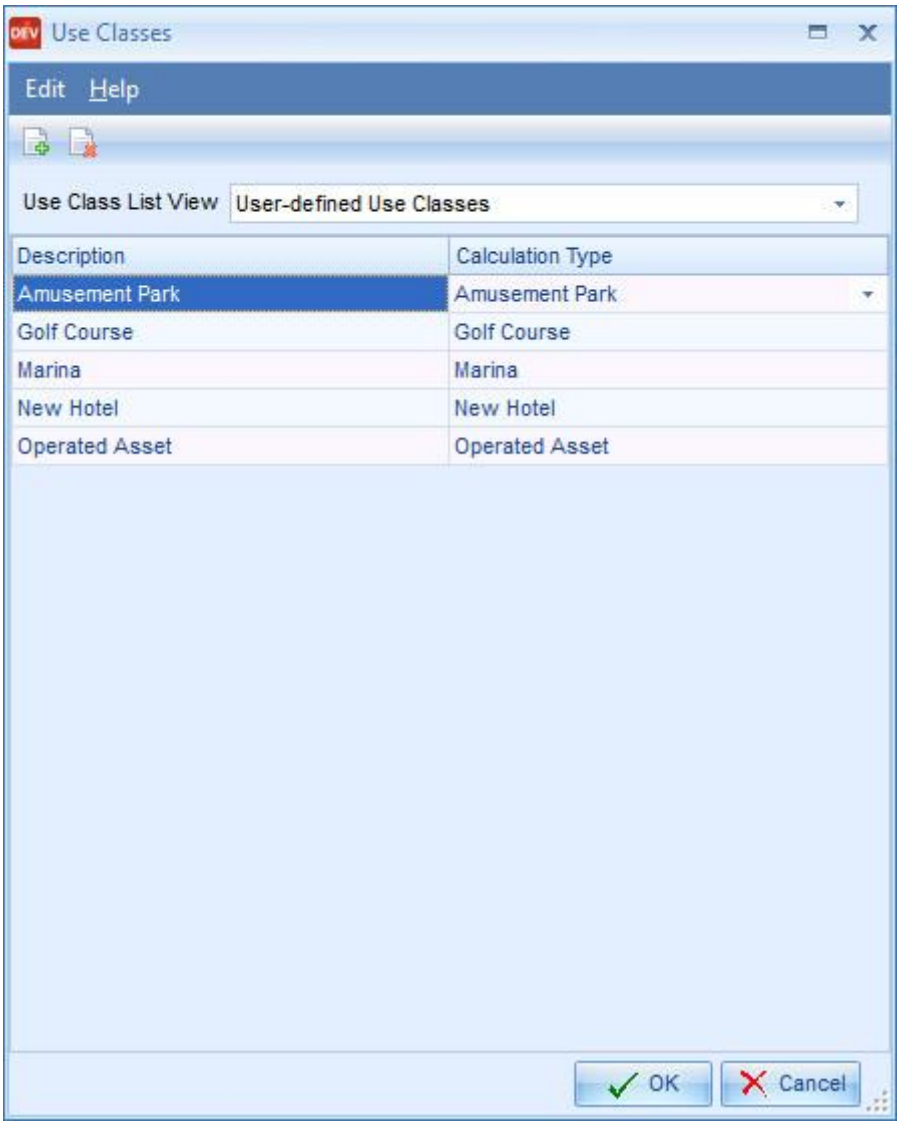
Importing and Exporting

Use Classes

ARGUS Developer allows all rent and sales area definitions to be classified into various categories known as Use Classes. A use class can be recorded against each tenant or property entered in the Area Schedules. The program comes with a fixed, or standard, template of use classes that are suitable for most development projects. If the standard template is not descriptive enough for the kinds of developments you do, you can customize the list of use type classes to include an unlimited number of additional descriptions. The list of use classes is saved with each project data file. This ensures that your use classes are available to anybody else that opens the data file. To view or create new use classes, select the **Use Classes** command on the Configuration tab.



To create custom use classes

1. Make sure that Developer is not being used by anybody other than you, otherwise any changes you make will not be saved.
2. Select *User-defined Use Classes* in the drop down list
3. Click the **Add a new use type** command on the tool bar and enter its name
4. Choose a Calculation Type from the drop-down list in the table

To delete custom use classes

1. Make sure that Developer is not being used by anybody other than you, otherwise any changes you make will not be saved.
2. Select *User-defined Use Classes* from the drop-down list
3. Click **Delete the selected use class** command on the tool bar and confirm by clicking the **OK** button
4. Any area records that use this use class will be changed to the Undefined use class

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Importing Data

If you have tenant or property details held in another system and want to use them in ARGUS Developer, you can import area definitions into ARGUS Developer by using the Import Wizard.

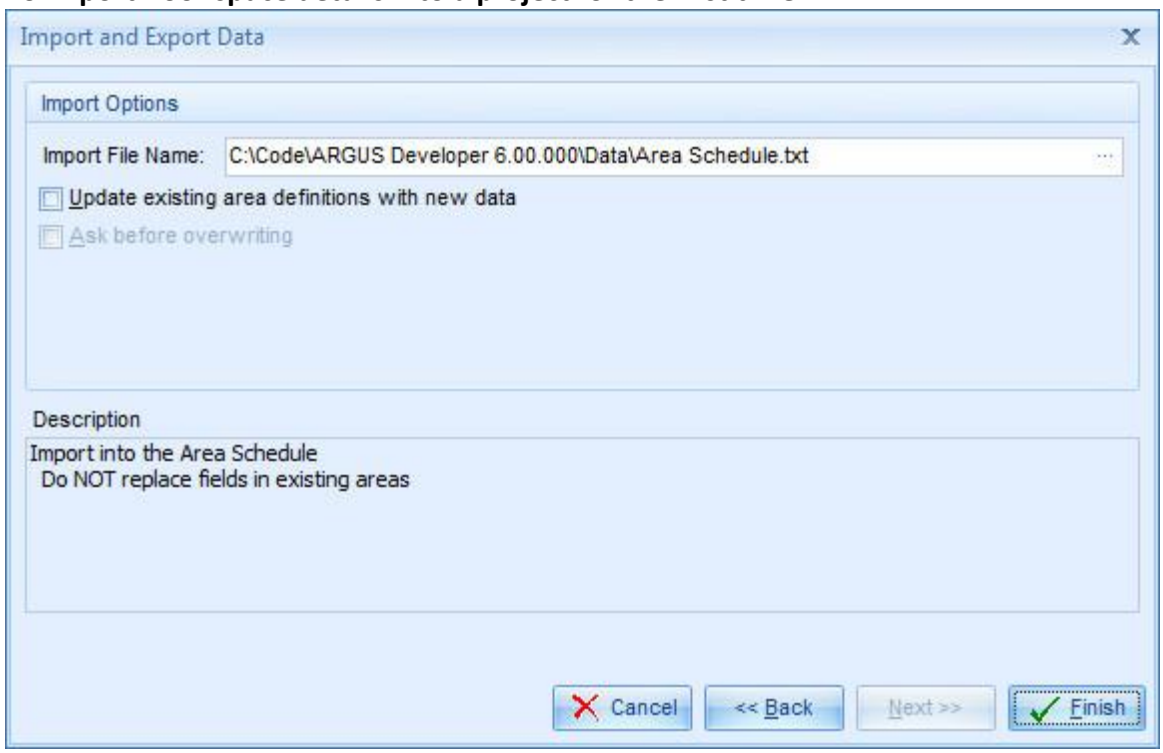
The import function allows the user to add tenant/property information from a text file into the ARGUS Developer area schedules. The text file could be generated by any system that can output comma separated variable (CSV) files. It should have the extension .TXT.

For further information about the format of the interface file, please contact ARGUS Support.

The Import Wizard will guide you through the process of getting information from another application into ARGUS Developer.

The Import Wizard can be opened by selecting File | Import and Export | Import and Export Wizard.

To import floor space details into a project for the first time



1. Select the **ARGUS Button >> Import & Export >> Import Data** command
2. Select *Import Area Schedule*, then click the **Next** button
3. Choose the file you want to import by entering its name or by using the browser button

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4. Un-check the **Update existing area definitions with new data** and **Ask before overwriting** options
5. Click **Finish**

To import floor space details into an existing project

1. Select the **ARGUS Button >> Import & Export >> Import Data** command
2. Select **Import Area Schedule**, then click the **Next** button
3. Choose the file you want to import by entering its name or by using the ellipsis button
4. Choose the required import options (see table below)
5. Click **Finish** to complete the process

To	Do this
Overwrite the project's existing area definitions. Areas will be matched on the Heading and Phase Number.	Select the **Update existing area definitions with new data** option.
Add definitions as new records.	Un-check the **Update existing area definitions with new data** option.
Review definitions before overwriting.	Select the **Ask before overwriting** option.

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Exporting Data

When you want to use the data you have created in ARGUS Developer in another package, you can use the Export Wizard. For example, you may wish to use the cash flow data and combine it with floor space information to perform analysis on a property, or to use the development costs only to model the refurbishment of a property in ARGUS Valuation - Capitalization.

ARGUS Developer data can also be exported into ARGUS Multi-view and ARGUS Development Budget.

You can export ARGUS Developer's data to a range of applications: Microsoft Excel, ARGUS Valuation - Capitalization and to any other application that accepts Comma Separated Value files.

Export to Microsoft Excel

Excel provides the ultimate in flexibility when working with numerical data such as cash flows. Formatting functions allow you to present your information in a variety of styles, and its formula-based approach allows you to combine different figures for detailed analysis.

Working closely with Excel, ARGUS Developer defines a set of templates that can be used for presentation and analysis of cash flows and appraisal summaries. Templates are provided to handle the different types of data generated by a development project.

When you export to Excel, ARGUS Developer opens Excel on your desktop and pushes the data into one of several pre-defined templates. The template and the data are chosen according to the type of report that you want to create.

A simple report will contain a detailed line-by-line cash flow for each item in the project. After the data section, the VAT and Interest value rows are included, followed by the column totals. When the report has been pushed to Excel, ARGUS Developer will provide some additional formatting for the row and column headings.

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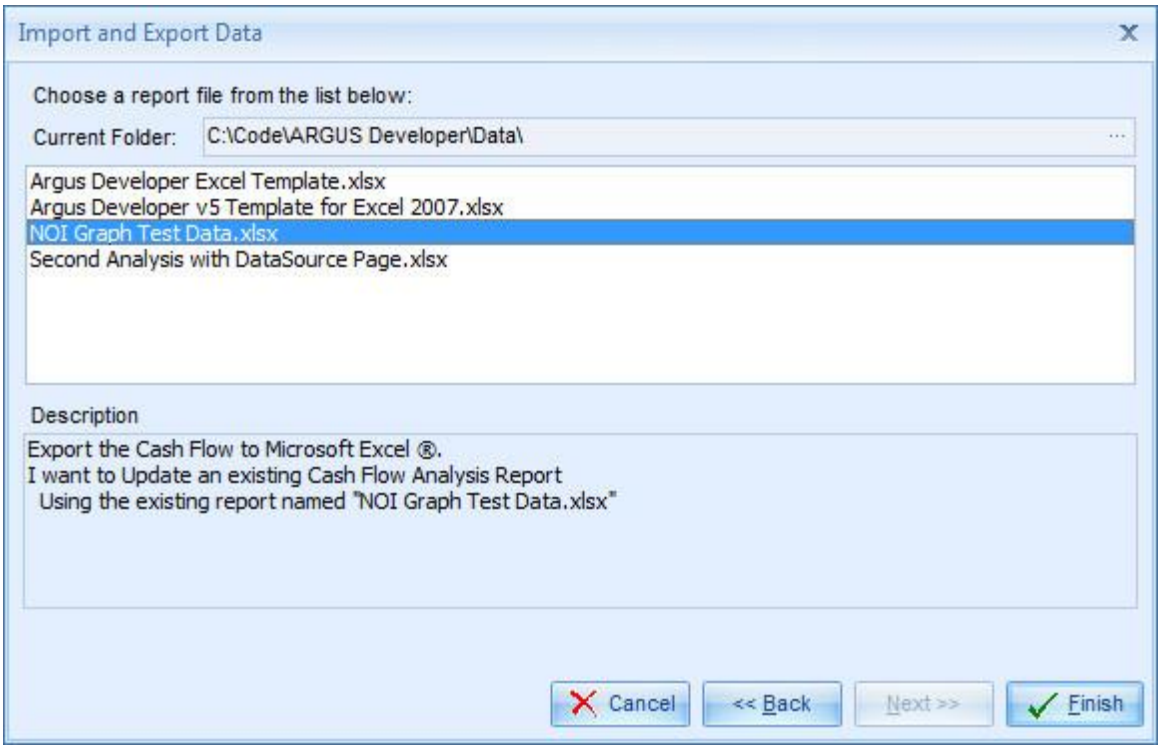
To export the cash flow to Excel



1. Select the **ARGUS Button >> Import & Export >> Export Data** command
2. Select *Export Cash Flow*, then click the **Next** button
3. Choose to export to Microsoft Excel, then click the **Next** button
4. Select from the following destination options:
   - **Create a simple Cash Flow Report:** Enter the cash flow cycle required (in months) and specify whether hidden row values and group labels are to be exported. To reduce the number of rows of data in the exported cash flow, uncheck both these options.
   - **Create a new Cash Flow Analysis Report:** Choose a template for the report from the list provided or, if you do not see the template you require in the default Excel Analysis Template folder, use the browser to view another drive or directory. If your project uses Structured Finance, an additional option is available. To export individual cash flow lines that all have the same category - e.g. Construction: Select **Export detailed list of line items** for each category.
   - **Update an existing Cash Flow Analysis Report:** Choose a report from the list provided or, if you do not see the report you require, use the browser to view another drive or directory.
5. Click the **Finish** button to complete the export process

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Export to ARGUS Valuation - Capitalization

The export to ARGUS Valuation - Capitalization produces a file that contains all the information required to generate a development cash flow that integrates with the investment cash flow. The ARGUS Valuation - Capitalization cash flow calculates a single purchase price and one capitalization value for each tenant. Since ARGUS Developer also calculates these values for each project, you are given the option to suppress these values to avoid double-counting.

After the export has been completed, open ARGUS Valuation - Capitalization and attach the export data file to the relevant portfolio or property.

To export the cash flow to Excel

1. Select the **ARGUS Button >> Import & Export >> Export Data** command
2. Select *Export Cash Flow*, then click the **Next** button
3. Choose to export to ARGUS Valuation - Capitalization, then click the **Next** button
4. Choose whether to export Purchase Price and Fees and/or Capitalization and Fees by checking the appropriate options.
5. Click the **Finish** button to complete the export process

Export to ARGUS Development Budget

ARGUS Developer cash flow data can be exported to ARGUS Development Budget for reforecasting and tracking to actual spend. The export file will be saved in XML format with the extension .XML.

To export the cash flow to ARGUS Development Budget

1. Select the **ARGUS Button >> Import & Export >> Export Data** command
2. Select *Export Cash Flow*, then click the **Next** button
3. Choose to export to ARGUS Development Budget, then click the **Next** button
4. Click the **Finish** button to complete the export process

Export to ARGUS Multi-view

ARGUS Developer project and structured finance cash flow data can be exported to ARGUS Multi-view for consolidation into a single cash flow. The export file will be saved with the extension. CCF.

To export the cash flow to ARGUS Multi-view

1. Select the **ARGUS Button >> Import & Export >> Export Data** command
2. Select *Export Cash Flow*, then click the **Next** button
3. Choose to export to ARGUS Multi-view, then click the **Next** button
4. Click the **Finish** button to complete the export process

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Export to Comma Separated Values file

ARGUS Developer data can also be exported to Comma Separated Value files (.CSV). These can be opened in other applications such as word processors, spreadsheets, databases, and other proprietary packages.

When the export has been completed, you can go to another package and open the file. At this point, there may be options available for importing the file.

To export the cash flow to CSV format

1. Select the **ARGUS Button >> Import & Export >> Export Data** command
2. Select *Export Cash Flow*, then click the **Next** button
3. Choose to **Export to Comma Separated Values**, then click the **Next** button
4. Select the cash flow cycle (monthly, quarterly etc.) from the drop-down selector.
5. Click the **Finish** button to complete the export process

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Currency Conversion

Working with Other Currencies

Convert your project into another currency at any time by selecting the **Currency** command from the Home tab. When you first enter the currency screen, you will see your home currency on the first row of the table. To enable currency conversion, you must add the appropriate currency to the table by entering its name, symbol, and conversion rate. Multiple entries can be made as required.

To add a new currency conversion

1. Click the **Add Currency** command or select *Add Currency* from the Currency menu.
2. A new row will appear in the table into which you should enter the name of the currency you wish to use, the symbol used to represent the currency and the conversion rate (Units/Home Rate) to be used.
3. Up to six decimal places may be used.

To delete a currency conversion

1. Select the currency from the table.
2. Click the **Delete Currency** command or select *Delete Currency* from the Currency menu.

To convert the project to a different currency

1. Select the **Home Rate?** option

2. ARGUS Developer will convert all monetary rates and fixed amounts in the project using the Units/Home Rate entered.

Conversion Process

During the conversion, ARGUS Developer works through each of the capitalized rent and sales definitions from the area schedules, and converts the rates and unit values. All gross costs and capital values are then recalculated and written to the cash flow. Next, all the fixed values are converted and the project is recalculated. All reports will now show the converted values with the appropriate currency symbol.

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Cost Codes for ARGUS Development Budget

Cost Codes for ARGUS Development Budget

ARGUS Developer integrates with ARGUS Development Budget (ADB) by exporting its forecast data in a cost-coded export file. ADB opens the file and imports the data into a project for comparison with actual costs and revenues.

To send forecast data to ADB, you must code each cost and revenue with a cost code. The cost codes used in both Developer and Development Budget must be the same.

To use the same cost code structure in both programs, you first create a cost code template file in ADB and save it in a location that Developer can easily find. Once you have created this template file, you can proceed to code up the forecast data in ARGUS Developer.

To add a cost code file to a project

1. Select the **Cost Codes** command from the Configuration Templates group on the Configuration tab.
2. Select the **Add Cost Codes to this Project** option.
3. Use the **Cost Code File** ellipsis button to browse to the location of the cost code template.
4. Click the **OK** button.

To add a default cost code to new cash flow items

1. From the **Default Cost Code** drop-down, select a default cost code.
2. Un-check the **Add Default Cost Code** option to costs and revenues that already have a code.
3. Click the **OK** button.

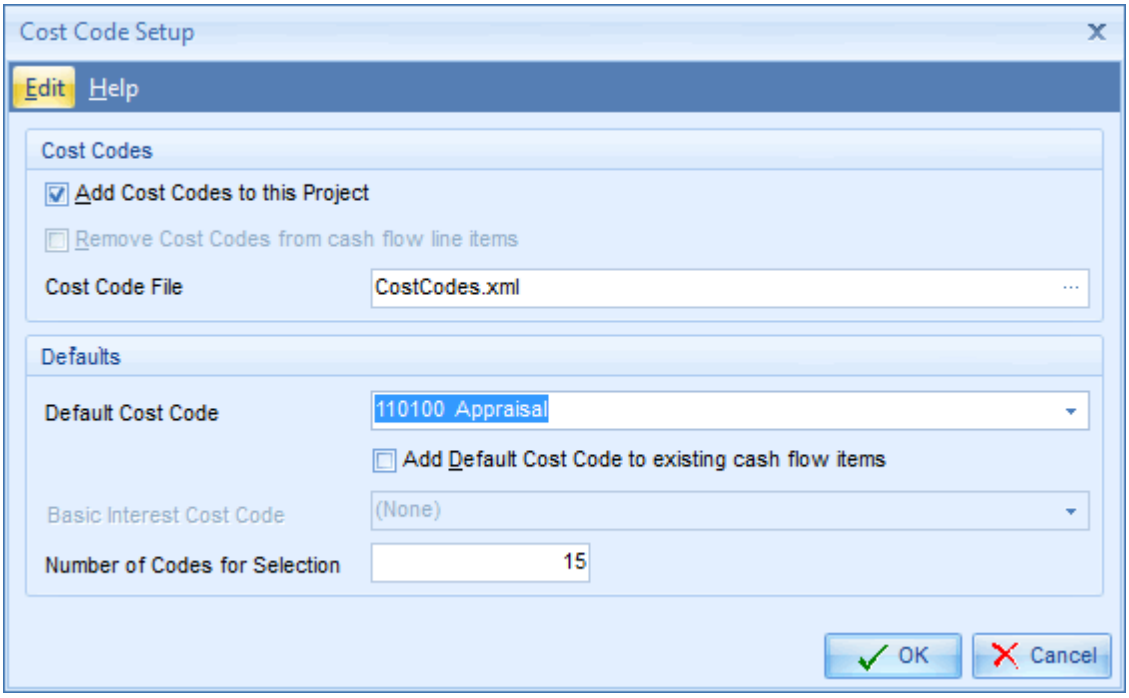
To add a default cost code to all cash flow items

1. From the **Default Cost Code** drop-down, select a default cost code.
2. Select the **Add Default Cost Code** option to costs and revenues that already have a code.
3. Click the **OK** button.

To select a cost code for Basic Finance interest costs

1. If you are using Basic Finance (Interest Sets), use the **Basic Interest Cost Code** drop-down to select a cost code for the interest cost.
2. Click the **OK** button.

This field will not be enabled if you are using Structured Finance. An entry in this field is optional - you can leave it blank by deleting the text from the field.



The number of cost codes shown in each drop-down box can be specified by entering the number in the Number of Codes for Selection box.

Cost Codes in the Cash Flow

Open the Project Cash Flow tab.

You will notice that there is now a Cost Code column in the cash flow, each cell containing the cost code that you selected for use as the default cost code.

This default cost code (which is an initial setting) can be replaced by the correct cost code. To assign the correct cost codes, click on the drop-down arrow and scroll through the list of cost codes. Select the cost code for the cost or revenue item:

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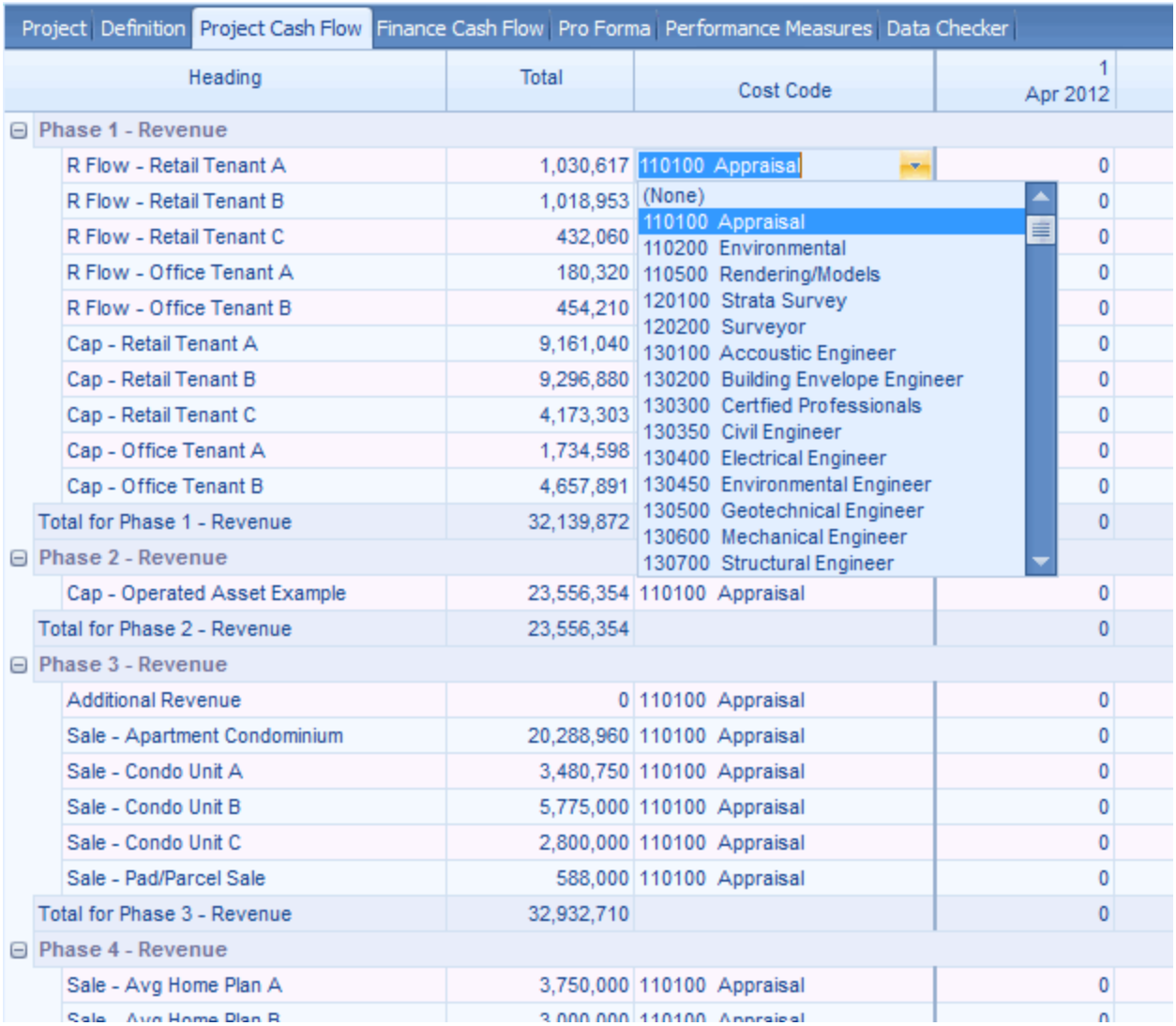

Perform this procedure for all the items shown in the cash flow.

Alternatively, you can assign these cost codes by going into each of the editors that are called from the Definition page. To do this, click on the Definition tab.

Open any editor to select a cost code for its cost and revenue line items

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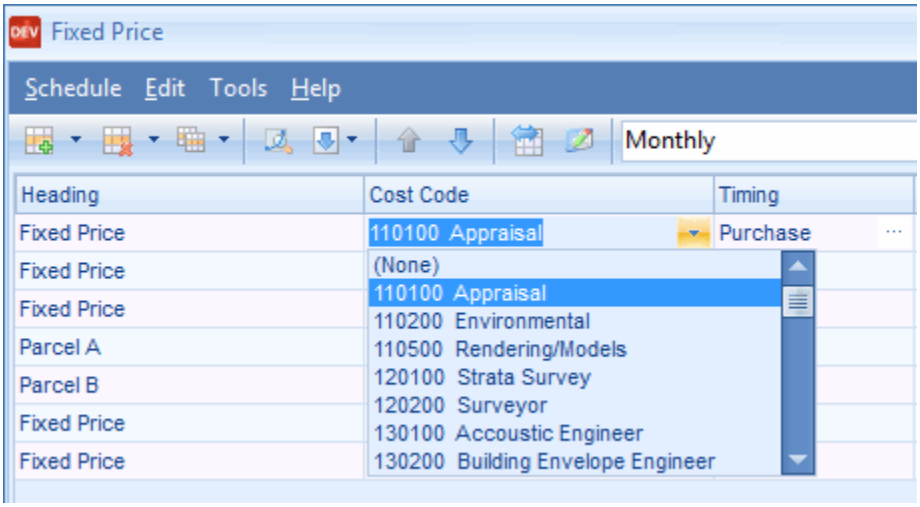

In the Cost Code column, you can select the appropriate cost code in the drop-down list.

Exporting Forecast Data

Once you have finished setting up all the cost code assignments, you will want to export the forecast cash flow to ARGUS Development Budget.

To export forecast data

1. Select the **ARGUS Button > Import & Export > Export Data** command.
2. Select **Export Cash Flow** and click the **Next** button.
3. Select *ARGUS Development Budget* and click the **Finish** button.
4. Browse to a folder location and enter a name for this forecast data file and click **Save**.

The file is now ready to import into a budget worksheet in ARGUS Development Budget. Use the Forecast Data Wizard in ADB to achieve this. See Importing data into the budget worksheet in your ARGUS Development Budget reference manual.

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Data Checker

Data Selector

The Data Selector is a useful tool that continuously monitors the state of your project as you enter data and change assumptions. It can immediately identify any inconsistencies within the project by automatically running a series of checks each time something changes.

The Data Selector is located on one of the main workspace tabs, usually after the Performance Measures tab.

Data Status Panel

The Data Status panel on the Status Bar indicates the status of the project data. It changes state to reflect the severity of the data checker's contents. The following table shows the possible states:

Status	Meaning
	There are no problems with any data or assumptions
	Hints - no action is required
	Warnings - some action is required
	Errors - action is required

Viewing the Data Selector

The Data Selector tab will be automatically focused to the first time any items are added to it – either after opening a project, or when changing data.

To open the Data Selector at any other time, either click on the Data Status panel or click the Data Selector tab.

The Data Selector window is divided into two main parts – the listing of individual data checks and the explanation of the problem.

Project Data

This part of the Data Selector tale holds information about the current state of the project. It is updated in real time when any data or assumptions are changed.

Load Notes

This part of the Data Selector table holds information about the state of the file when it was being Loaded. This section can give important information about how a file was automatically converted from a previous version of Developer. This section is not updated after loading the file.

Data Selector Contents

- **Phase:** The phase in which the issue has been detected
- **Location:** The area of the program that is affected by the issue (such as Cash Flow or Rent Schedule)
- **Heading:** The heading of the line in the Cash Flow
- **Description:** Description of the issue found

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Fixing Data Selector Entries

You can fix the problem that is the source of an entry in the Data Selector by double-clicking on it to open its editor.

Example: If there is an entry related to the timing or distribution of an amount, the program will automatically open the data distribution editor. After correcting the problem in the editor, the data checker entry will be removed.

When the File Load Status is shown in the Data Status panel, the file may have had a discrepancy automatically fixed by ARGUS Developer. These alterations will be documented in the Load Notes section.

Not all entries in the Load Notes section can automatically open an editor – this is because there may be more than one source for the problem, or because the source item has already been removed from the project.

Shortcuts to Fixing Entries

To avoid the need to go into each entry to edit the source data, there are some shortcut methods that you can use to quickly make corrections. To show the following context-sensitive commands, right-click on any entry:

Edit Source: This will take you to the part of the program where the issue is located.

Allow Leases to start After Sale Date: Allows leases to start after the sale date. This is useful for loading .WCF files created in earlier versions.

Align Lease Start Date to Capitalization Date for this Tenant: Aligns lease start date to the sale date for the highlighted tenant.

Align Lease Start Date to Capitalization Date for all Tenants: Aligns lease start date to the sale date for all tenants that are shown in the data checker.

Reset Timing on System Timed Item: Resets timing to default on the highlighted warning for manually timed or distributed lines.

Reset Timing on ALL System Timed Items: Resets timing to default on all system timed items for manually timed or distributed lines.

Remove Load Note: Deletes highlighted load note.

Remove All Load Notes: Deletes all load notes in data checker.

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Filters

If you want to temporarily hide some of the entries in the table, use the filters on the tool bar. There are two types of filter – the Event Filter and the Severity Filter.

Event Filter

The Event Filter allows you to hide specific types of event – such as overridden default relation flags, or manually distributed cash flow lines. It is a useful tool that can be used to filter out hints that have no impact on the project.

To Create an Event Filter

1. Click the **Add Filter** command in the Event Filters group in the Data Selector tab
2. Enter a unique filter name and click the **OK** button
3. Un-check any option whose event you want to remove from the Data Selector
4. Click the **OK** button

Although the individual entries are filtered out from view, you will still be given information about them at the bottom of the Data Selector. A line will show information about the number of event types that have been detected but not shown. To view them, edit the Event Filter and check the **Event Type** option.

Severity Filter

The **Severity Filter** buttons allow you to show or hide all the different event types under each category of severity. It is a quick way to hide all events such as warnings so that you can focus on more important events.

The **Severity Filter** push buttons are found in the Severity Filters group on the Data Selector tab. To include all events under a severity category, push the button. It will become highlighted to indicate that it is actively filtering out the events.

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System Configuration

System Configuration

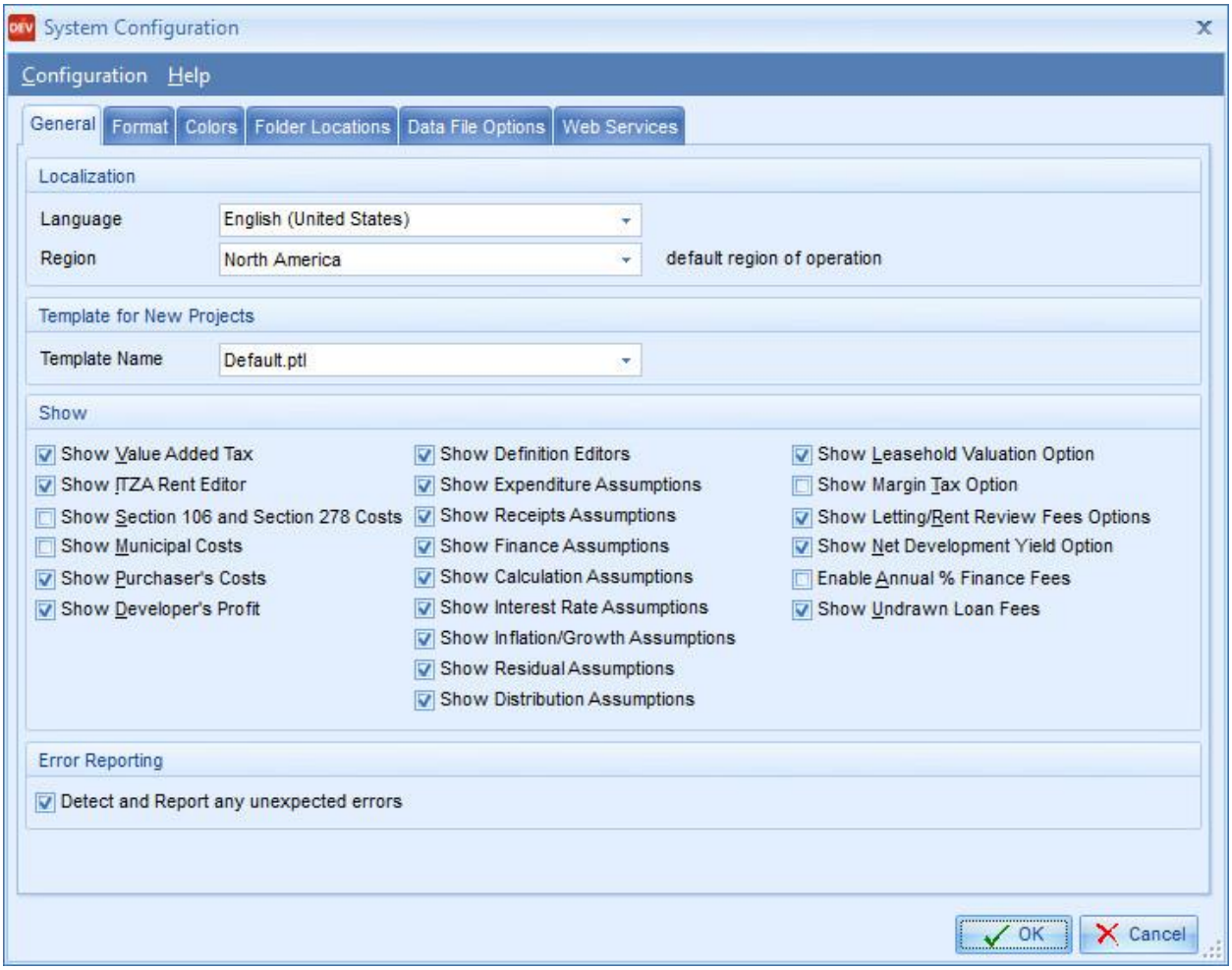
There are a number of options available to change the system configuration. You can access these by selecting **Configuration** from the ARGUS button menu.

Options for configuring the following components of the system are available:

- General: Localization, Templates for New Projects, Show Options
- Format: Currency symbols, thousands separators
- Colors: Custom colors
- Folder Locations: User data folders, templates, reports folder
- **Data File Options:** Formats for loading/saving, file security
- Web Services: Live Map

General

The General tab contains options for configuring the locale, specifying a template, or whether to display certain optional prompts in the software.



Localization

ARGUS Developer can be customized to work with different languages and with different country-specific calculation models and options.

Language

The language in which Developer presents each of its screens can be selected from the following English variants –British English, North American English and Australian English. When you select a language from the selector, every window changes to show the text and terminology in a localized language version.

Region

The Region selection has several uses in the program. Its purpose is to access all the files and templates that make the program specific to the region in which you prepare your development models. Another important function of the **Region** selection is to

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determine which calculation model will be used for valuing capitalized rent areas. The **Region** field ensures that any model you prepare in your home region can be opened and valued in another region with the same results.

Template for New Projects

When you first open the program, or start a new project, Developer can use a project template that contains all the setting for the type of project you work with most often.

Select the default new project template in the drop-down list. This is the default template that is opened when you start a new project by clicking **ARGUS Button > New > New Default Project** option.

Show Options

These various options enable certain options to be enabled or disabled in the program.

Show Value Added Tax

If this is checked, then the Value Added Tax screens are enabled and can be opened by clicking on the **VAT Schedule** button. If this option is not checked, then the **VAT Schedule** button is removed from the button bar and the Value Added Tax screens are not available for use.

Show ITZA Rent Editor

To activate the Retail Zoning (Area ITZA) rent screens this option should be checked. ITZA definition screens may then be opened in the Capitalized Rent form by clicking on the **Retail Zoning** (Area ITZA) button or selecting **Zoning** (Area ITZA) from the Area menu. If this is unchecked, then the ITZA options are disabled.

Show Section 106 and Section 278 Costs

To enable the definition of Section 106 and Section 278 costs in the Definition screen, this box must be checked. If this option is unchecked, the Section 106 Costs and Section 278 Costs will not be available as menu options when you click on the **Other Construction** button in the Definition screen.

Show Municipal Costs

To enable the definition of Municipal Costs in the Definition screen, this box must be checked. If this option is unchecked, the **Municipal Costs** field will not be visible in the Definition screen.

Show Purchaser's Costs

To enable the definition of Purchaser's Costs in the Definition screen, this box must be checked. If this option is unchecked, the **Purchaser's Costs** field will not be visible in the Definition screen.

Show Developer's Profit

If this is checked, the **Developer's Profit** option may be selected from the Definition menu in the tool bar. If this is not checked, **Developer's Profit** is disabled.

Show Definition Editors

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To show the Definition tab within the main application area, this check box must be checked. To hide the Definition tab, uncheck this box. When you hide the Definition tab, the inputs of floor areas, rates, fees and costs will be entered using the Cash Flow.

Show Expenditure Assumptions
To show the tab for Expenditure in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Expenditure tab will not be visible.

Show Receipts Assumptions
To show the tab for Receipts in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Receipts tab will not be visible.

Show Finance Assumptions
To show the tab for Finance in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Finance tab will not be visible.

Show Calculation Assumptions
To show the tab for Calculations in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Calculations tab will not be visible.

Show Interest Set Assumptions
To show the tab for Interest Sets in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Interest Sets tab will not be visible.

Show Inflation/Growth Assumptions
To show the tab for Inflation/Growth in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Inflation/Growth tab will not be visible.

Show Residual Assumptions
To show the tab for Residuals in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Residuals tab will not be visible.

Show Distribution Assumptions
To show the tab for Distributions in the Defaults and Assumptions window, check this check box. If this check box is unchecked, the Distribution tab will not be visible.

Show Leasehold Valuation Option
To enable the valuation of leasehold interests, defined in the Capitalized Rent screen, this option must be checked. If this option is unchecked, then freehold interests only may be valued.

Show Margin Tax option
To enable the definition of Margin Tax in the Value Added Tax window and Cash Flow screen, this box must be checked. If this option is unchecked, the **Margin Tax** options will not be visible in the Value Added Tax window or Cash Flow screen. This feature is not used in the UK or Europe.

Show Letting/Rent Review Fees options
If this option is checked, users may specify whether Letting/Rent Review fees are calculated on gross MRV or MRV net of deductions. These options may be selected in

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the Calculation tab of Assumptions for Calculations. If this box is not checked, these options are hidden.

Show Net Development Yield option
If this option is checked, then you may specify whether the calculation of the Development Yield is to be net of service charge and deductions and net of ground rent. These options may be defined in the Calculation tab of Assumptions for Calculation. If this box is not checked, these options are hidden.

Show Annual % Finance Fees
To enable the editing of the **% pa Amount** field in the Finance Fees tab (in the Structured Finance screen, when you have the Related fee type selected), this box must be checked. If this option is unchecked, the **% pa Amount** field cannot be edited.

See Also
Finance Fees

Show Undrawn Loan Fees
If this option is checked, undrawn loan fees are displayed on the Finance Fees page of the Structured Finance window.

See Also
Finance Fees

Error Reporting

Developer can monitor any unexpected errors that arise when it is running on your computer. To help with detection and resolution to these errors, you can switch on the **Error Reporting** function. When this option is checked, Developer will save some information about the cause of the error to a log file and give you the opportunity to email it to ARGUS Software.

The information in the error report includes a screen shot of the active screen, a trace of the code that was executing when the error occurred and some configuration settings. An edit box is displayed that allows you to enter a short description of what you were doing in the application when the error occurred. Click the **Send Error Report** button to send the report to ARGUS Software.

If you do not want to send the error report to ARGUS Software, click the **Don't Send command** button.

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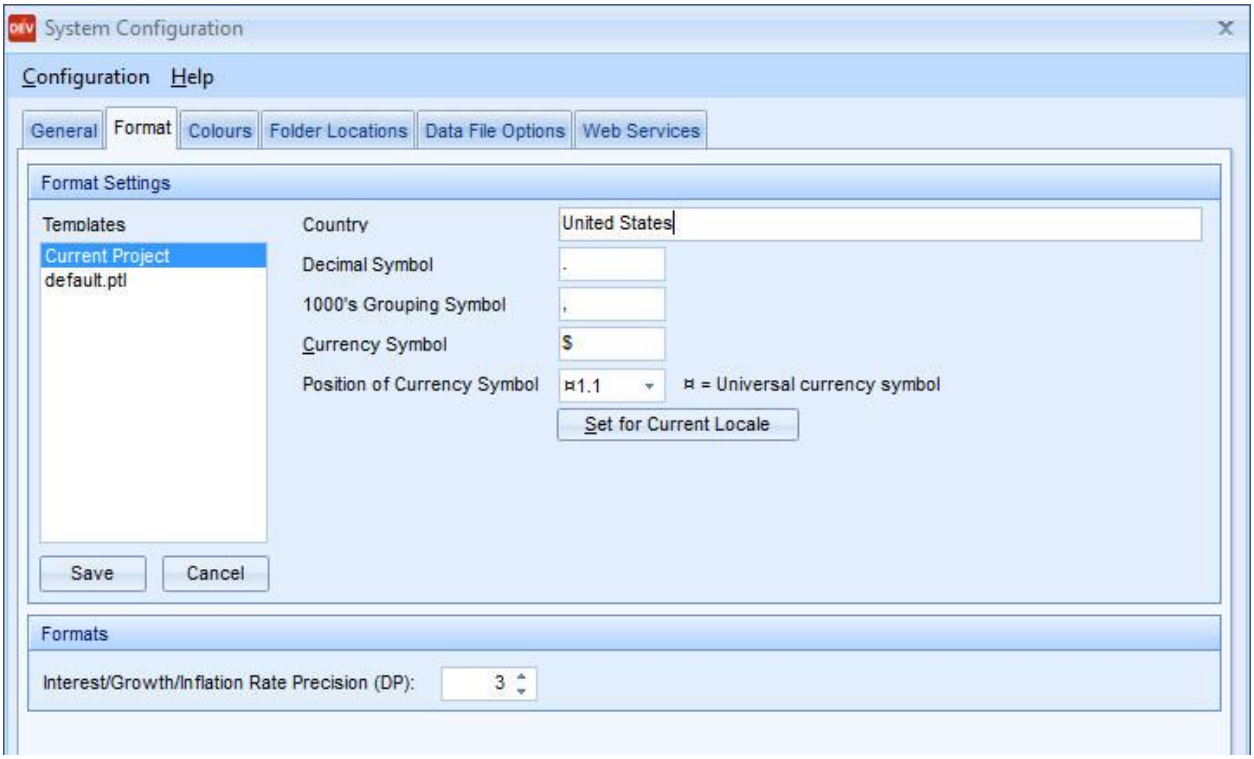
Format

The Format tab allows currency and other settings to be defined for project templates and for the current project listed in the Templates box.

Select the current project or template from the Templates list provided.

To edit the settings for the selected template or project, click onto the **Edit** button. This enables the **Format Settings** fields to be amended, as shown below. Click the **Save** button to save changes or the **Cancel** button to return to the default settings for the selected template.



Format Settings

Country

Enter the country name for these format settings.

Decimal Symbol

Enter the symbol to be used for indicating decimal values into the Decimal Symbol box.

1000's Grouping Symbol

Enter the symbol that will be used to group the digits in large values into the 1000's Grouping Symbol box.

Currency Symbol

Enter the symbol that identifies a country's currency into the Currency Symbol box.

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Position of Currency Symbol

You can specify where the currency symbol appears in relation to a currency value. A placeholder symbol represents the setting that is specified in the Currency Symbol box.

Set for Current Locale

This resets all the settings in the Format tab for the selected template to those defined for the current locale.

Set from <country> Locale

This resets all the settings in the Format tab for the default template to those defined for the selected country configuration, as defined on the Country tab of System Configuration.

Formats

In the Formats group, you can set the number of decimal places that will be used to display interest, growth (escalation) and inflation rates. You can choose a precision of two, three, or four decimal places.

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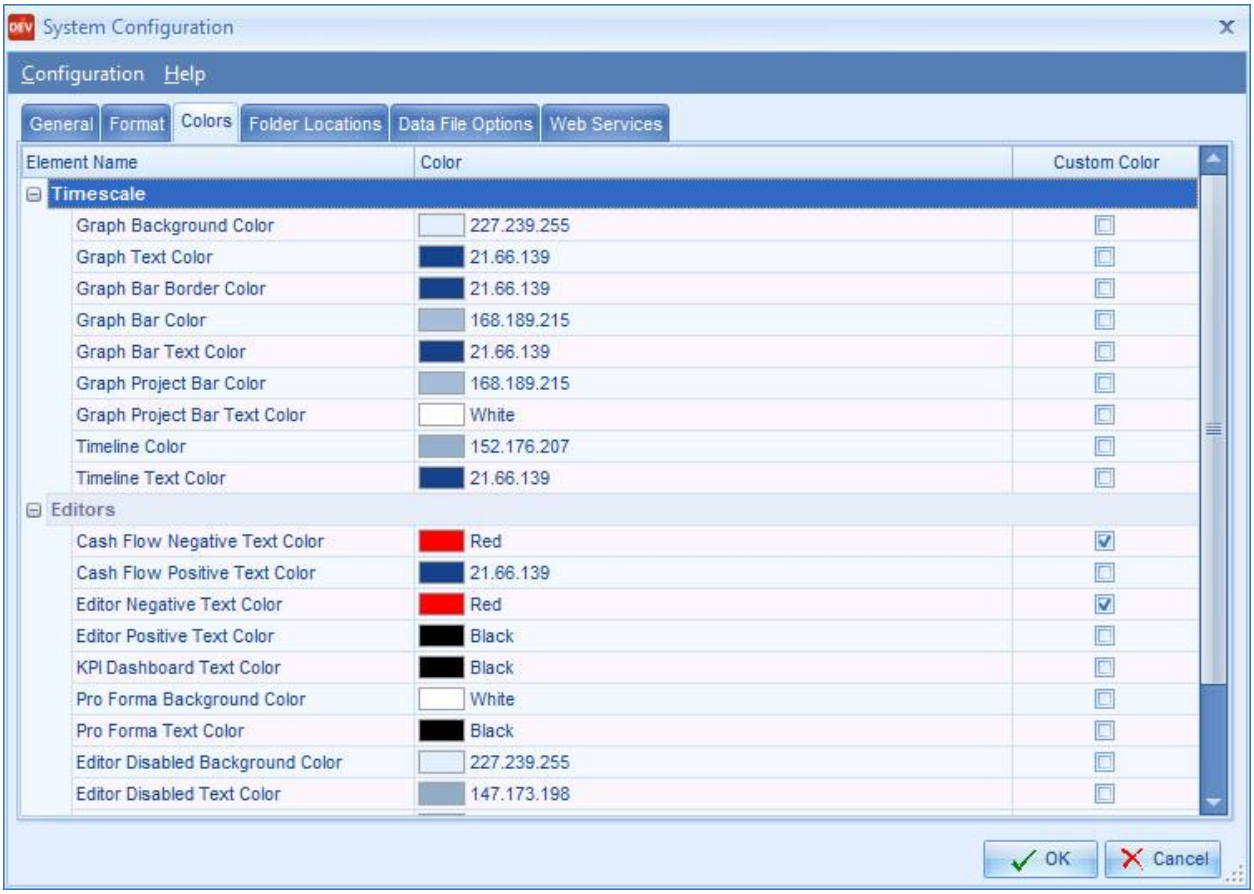
Colors

The color scheme for the program is selected on the Configuration tab in the main application workspace. However, individual elements can be customized to make them stand out from either the background or from other text or fields. Change these color elements using the Colors tab.



To change an element color

1. Click into any color element and drop-down the **Color Selection** field
2. Make a selection from the list of standard colors available

To customize an element color

1. Click into any color element and click on the ellipsis button
2. Make a selection from the table of colors or click *Define Custom Color*
3. Use the palette to create the color you want then click the **Add** button to add custom colors
4. Click the **OK** button

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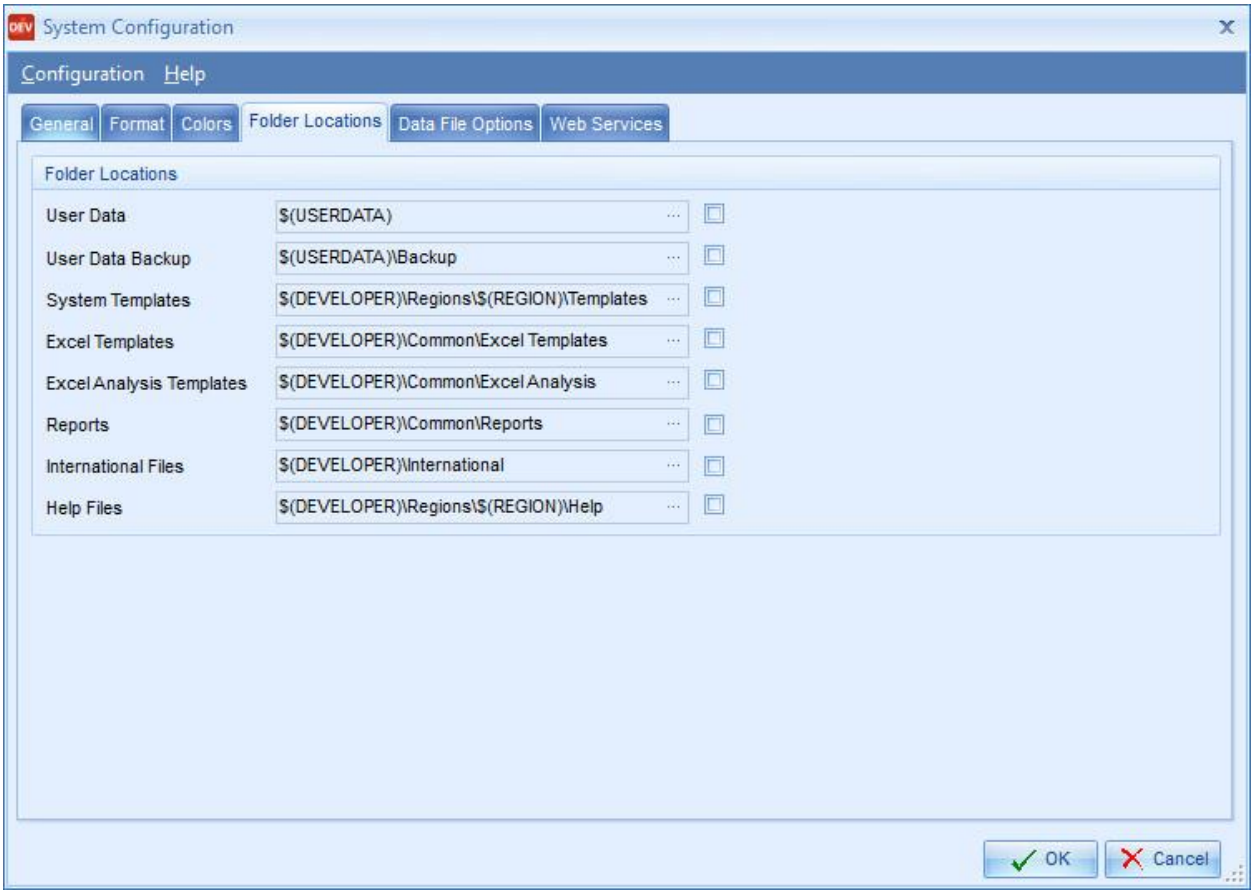
Folder Locations

Use the Locations tab shows the location of all project data files, templates, and help files. It can be customized by system administrators to make the program conform to your organization's IT policies on data storage.



User Data

The default location for saving and loading data files. The User Data folder is common to all users of the system.

User Backup Data

The default location for saving and loading backup data files. When the option to create backups is selected, backup files are created each time a data file is saved. The User Backup Data folder is common to all users of the system.

Systems Templates

The default location for the template data files. The templates control the creation of the cash flow and the layout of the Summary. They are common to all users of the system.

If you create any project template files, they should be stored in this directory.

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Excel Templates
The default location for general Excel template files which are used when data is exported into Excel as a simple cash flow. They are common to all users of the system.

Excel Analysis Templates
The default location for Cash Flow Analysis Excel template files. The templates are used when data is exported into Excel to create analysis reports. They are common to all users of the system.

Reports
The location of report template files.

International Files
The location of files used for translations of the program into different languages. Each country has a sub-folder containing the translation dictionaries.

Help Files
All context sensitive help files are held in this folder.

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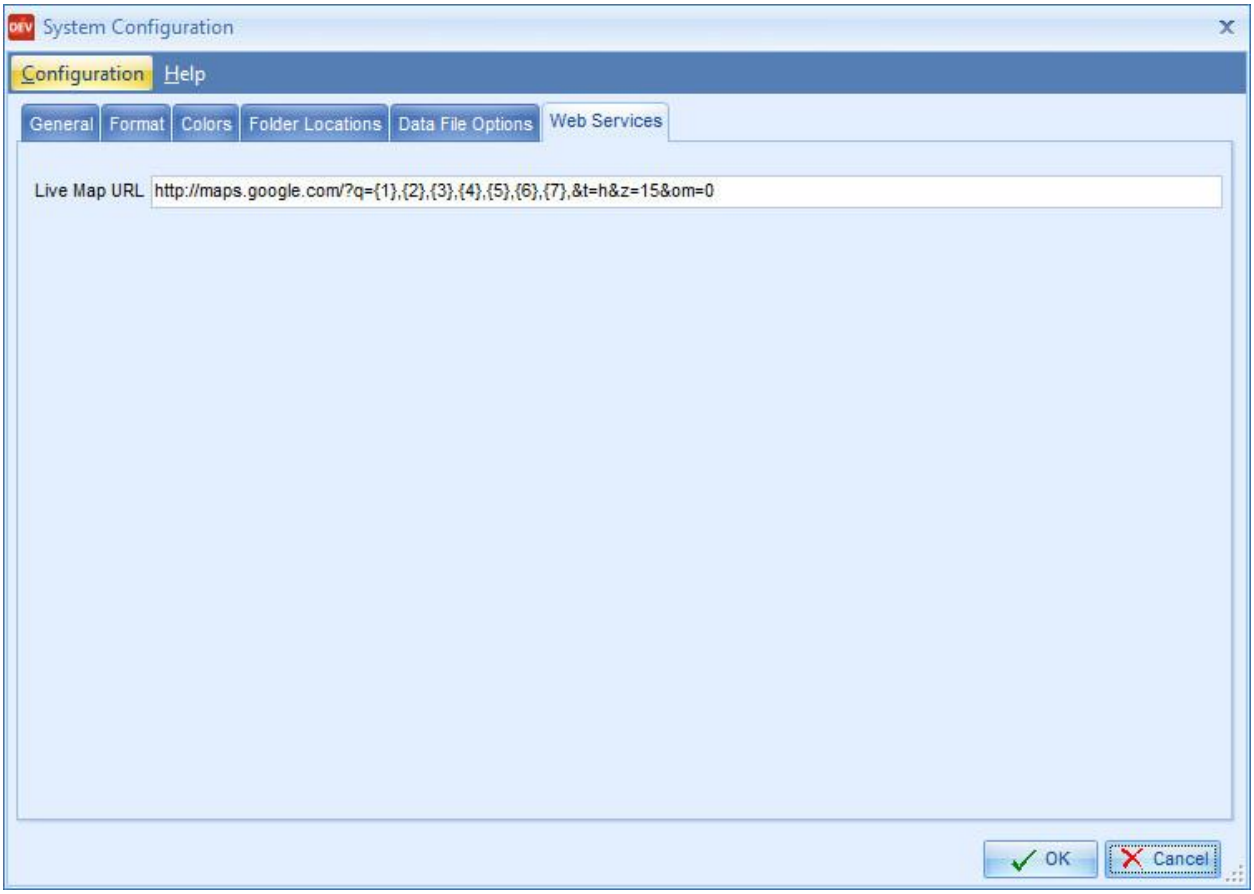
Web Services

Web services are needed to support the Live Map view of the project integrated into the Project tab in the main application workspace. The live map requires an internet URL string to access any map services. The string used to open a map website is entered into the **Live Map URL edit** field. The live map works by sending each of the fields in the Location group in the Project tab into a map search engine to show the map. You can control the number of fields that are used in the search by changing the number sequence in parentheses {}. Each number in parentheses indicates a field in the Location group – for example {1} is the **Address Line 1** field, and so on.



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Changing Settings and Display Preferences

Changing Settings and Display Preferences

The Preferences Dialog

You can change many of the default settings to customize the way in which ARGUS Developer works. For example, you may want to:

- Hide Key Performance Indicators on the Summary report
- Change the units of measurement
- Change the font settings

To change the default settings, choose Preferences from the **ARGUS Developer** button in the upper-left corner of the main window.

Alternatively, in the Cash Flow and Summary, you can right-click and select the Preferences menu.

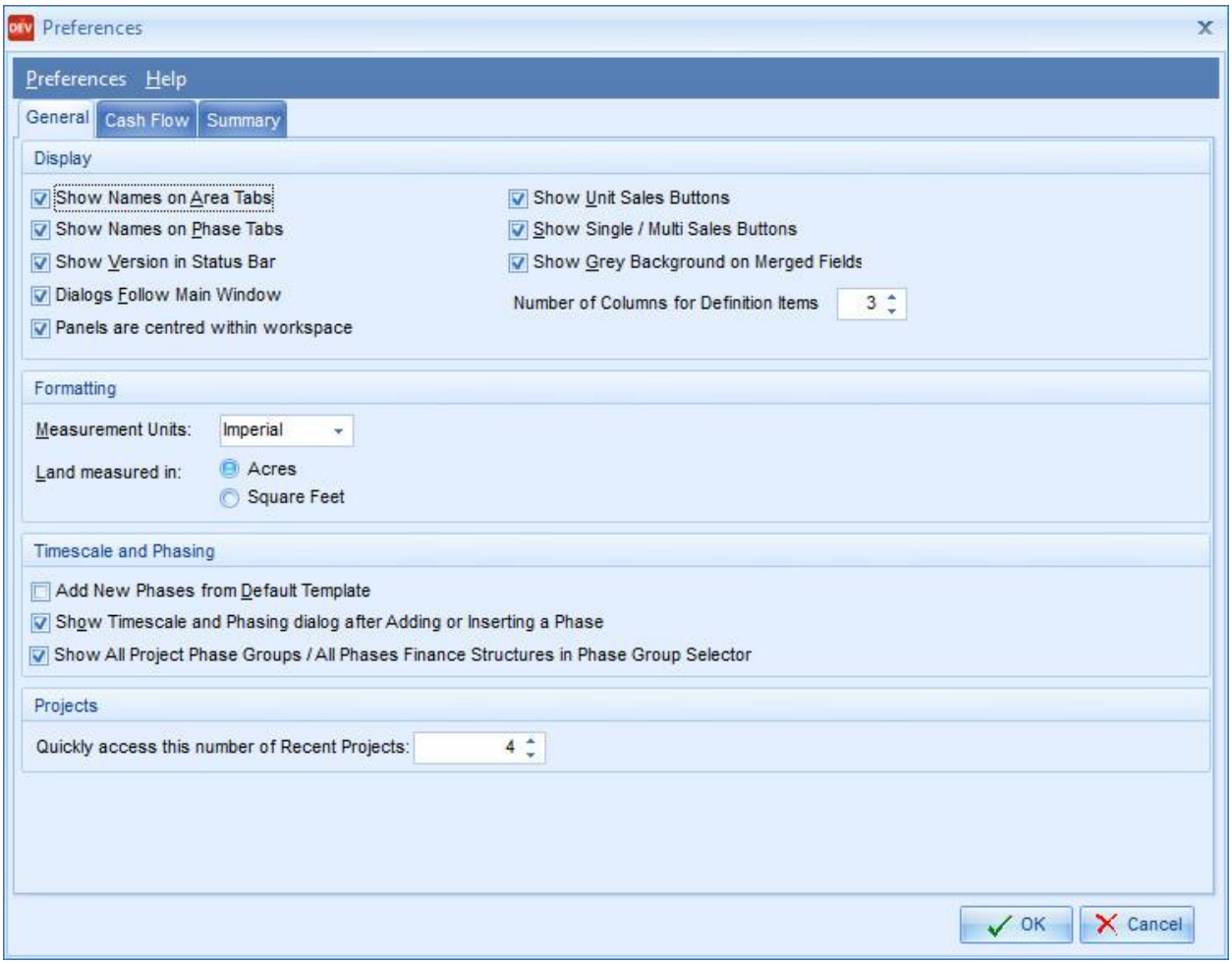
The Preferences window is divided into three tabs: General, Cash Flow, and Summary.

When you select a tab, the options for that tab are shown. Settings are determined by selecting or clearing the options or by typing or selecting new information. The new settings take effect when you close the window by clicking the **OK** button, and remain in effect until you change them again.

See Also

General Preferences
Cash Flow Preferences
Summary Preferences

General Preferences



Display Options

Show Names on Area Tabs

For the tenant/area name (from the **Heading** field in the Area Schedule) to appear on area tabs in the Area Schedules (capitalized rent and sales), check this option. If this option is unchecked, then the tabs will display the area number, such as area one, area two and so on. This applies to both capitalized rent and sales entries.

Show Names on Phase Tabs

For the Phase Name to appear on phase tabs, check the **Show Names on Phase Tabs** option. If this check box is cleared, the standard phase numbering will appear on phase tabs, such as Phase 1, Phase 2, and so on.

Show Version in Status Bar

Select this check box if you wish to display the ARGUS Developer version number in the status bar in the bottom of the application workspace.

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Dialogs Follow Main Window

If this option is checked, windows will automatically open in the main window in which the Developer program is open. If this option is unchecked, the window will open in the window in which it was last closed.

Panels are Centered within Workspace

You may choose to show the cost and revenue data entry fields in the center of the application workspace, or, depending on the layout of your workspace, show them to the right of the workspace. Select the option to show them in the center of the workspace.

Show Unit Sales Buttons

For users who do not intend to work on developments involving non-capitalized sales, you may prefer to hide the button that opens the Unit Sales form in the Definition screen. Clear the **Show Unit Sales Buttons** option to hide this option in the Definition screen.

Show Single/Multi Sales Buttons

You may prefer to hide the buttons that open the Single Unit Sales and Multi Unit Sales forms in the Definition screen. Clear the **Show Single/Multi Sales Buttons** option to hide these options in the Definition screen.

Show Grey Background on Merged Fields

When this option is checked, the fields in the Definition screen for the Merged Phases tab will be displayed with a grey background and black font. If unchecked, the fields are displayed with a white background and grey font.

Number of Definition Columns

Specify the number of columns of cost and revenue data entry fields that you want to see on the Definition tab by increasing or decreasing the number in the spinner box. Either type a number from one to three, or use the spinner arrows to increase or decrease the number.

Formatting Options

Measurement Units

Specifies whether the floor space definitions are held in imperial (square feet) or metric (square meters). Changing this option will recalculate all area-based definitions to the new standard. Floor space, rent, sales, and construction rates are converted. In addition, all step increments in the Sensitivity Analysis function will be converted.

The Site Area will also be converted between the two standards.

Note: Switching between the two standards can create small discrepancies due to metric area measurements and monetary values being held to two decimal places.

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Land Measured in
Specifies the unit of measurement for the site area. The units are displayed against the **Site Area** field on the Definition page. When you enter a value into the **Site Area** field, the Summary shows the cost of the land per unit of measurement.

Time Scale and Phasing

Add New Phases from Default Template
When adding a new phase, if you wish this new phase to include default information such as time scale, fee relations, growth sets etc., from your default template, check the **Add New Phases from Default Template** option. If this option is unchecked, then ARGUS Developer will create a new blank phase.

Show Time Scale and Phasing window after Adding or Inserting a Phase
When adding or inserting a new phase by right-clicking on the Phase Tab bar, if you wish to immediately enter time scale and phasing data, check the **Show Time Scale and Phasing window on Add or Insert Phase** option. When this option is checked, the Time Scale and Phasing window will be shown after the phase has been added or inserted.

Show All Project Phase Groups
When you are working with multiple finance structures, the list of entries in the Phase Group Selector at the bottom left of the Phase Tab bar on the main application window can become very long. When this happens, it can be difficult to navigate through the list to find the entry you want. To reduce the number of entries in the list, and to show only the phase groups that belong with Finance Structure, uncheck the **Show All Project Phase Groups / All Phases Finance Structures in Phase Group Selector** option.

Note: You can also right-click on the Phase Tab bar and uncheck the **Show All Project Phase Groups** option to filter out the unwanted entries.

Projects

Recent Projects List
Specify how many projects recently opened that you want to appear on the **Recent Documents on the Application Menu** button. The minimum number of projects is one, and the maximum is twenty-five. You can quickly open a project by clicking on its name. Hovering over the name with the mouse will show you which drive and folder it is stored in.

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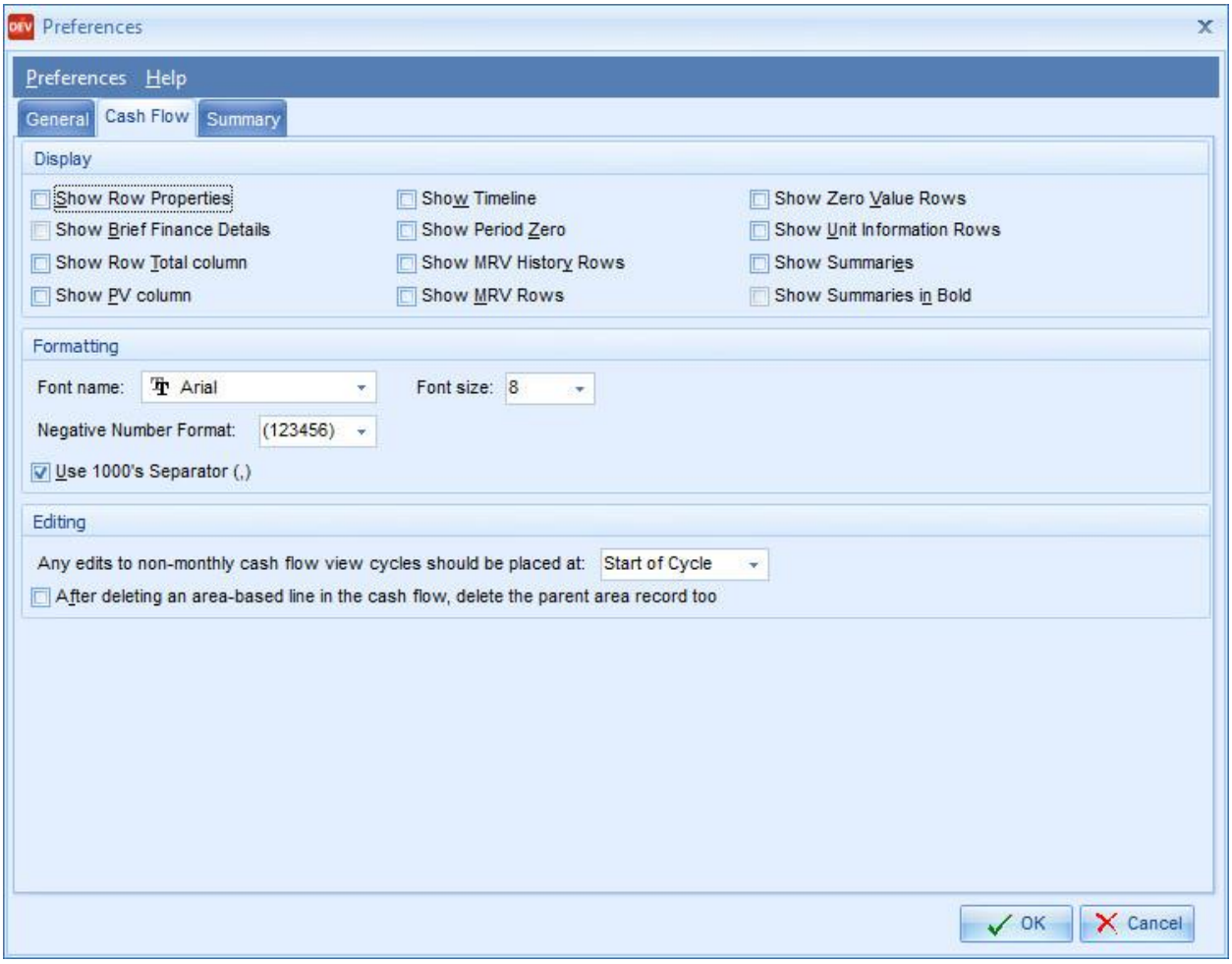
Cash Flow Preferences



Show Row Properties

If this option is checked, additional columns will be displayed on the left hand side of the Cash Flow screen, showing additional information about each row in the cash flow. You can display more data columns in the Cash Flow by clearing this check box to hide these columns.

Show Brief Finance Details

When Basic Finance (Interest Sets) is applied to a project, you can hide some of the VAT, Interest and Inflation data rows in the Finance Cash Flow by selecting this option. Select the **Brief Finance Display** option to hide Interest and Inflation Rate rows. If VAT has been set for any items, the program will show VAT paid and reclaimed, regardless of the **Brief Finance Details** option.

Show Row Total Column

An additional column at the start of the cash flow is displayed showing row totals when this option is checked. Clear the **Show Row Total Column** option to hide this column.

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Show PV Column
An additional column at the start of the cash flow is displayed showing the row total's present value when this option is checked. Clear the **Show PV Column** option to hide this column.

Show Time Line
The Time Line is displayed at the top of the cash flow directly beneath the date row, indicating the duration of each stage of the project, when this option is selected. If this check box is cleared, the time line will not be displayed.

Show Period Zero
If you check this option, period zero will be displayed in the Cash Flow and in the Data Distribution window, on the Editor tab. By default, this option is switched off.

Show MRV History Rows
If this option is checked, additional rows will be displayed in the cash flow showing the market rental value (MRV) for each unit of accommodation defined in the Capitalized Rent screen during the cash flow, taking into account any rental growth settings. These rows are hidden from calculations. To hide these rows from display, clear the **Show MRV History Rows** option.

Show MRV Rows
If this option is checked, a separate row showing the market rental value (MRV) at exit for each unit of accommodation defined in the Capitalized Rent screen will be displayed in the cash flow. If this check box is cleared, then MRV rows will not be displayed.

Show Zero Value Rows
If this option is checked, all zero value rows will be displayed in the cash flow. If this option is not checked, then any zero value rows will not be displayed.

Show Unit Information Rows
If this option is checked, rows showing information about the number of units under construction will be displayed in the cash flow.

Show Summaries
If this option is checked, a summary total row will be displayed at the bottom of each section in the cash flow.

Show Summaries in Bold
If this option is checked, the summary total row will be displayed in bold.

Formatting Options

Font for Cash Flow
You can choose the font used to display the Cash Flow data on screen. Drop down the font and font size selector to choose the font name and font size.

Negative Number Format
You can choose from three different formats for displaying negative numbers in the cash flow: plain, -ve sign or bracketed.

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Use 1000's Separator

You can format numbers with or without a separator between every third digit. To include a separator, select the **Use 1000's Separator** option.

Editing Options

Editing non-monthly cash flows

If you are editing a cash flow that is displayed in a non-monthly cycle, such as quarterly or annual, ARGUS Developer needs to know where it should place any edited values. You have the option of placing the value at the start of the cycle or at the end of the cycle; in other words, if you were editing a quarterly cash flow, the value would be placed in either the first month of the quarter or in the final month of the quarter.

Deleting rows based on rent or sales areas

When you are deleting area-based rows from the cash flow, you can make the program automatically delete the area record that generated it. This means that any other rows linked to the same record, such as the MRV or capitalized rent will be automatically deleted.

Alternatively, rather than remove the area record, you can make the program keep the area record and any linked rows. In this case, only part of the area record will be removed and its relevant field values set to zero.

To	Do this
Delete the area record and any linked rows.	Select the Remove Linked Area Records check box.
Keep the area record any linked rows.	Un-check the Remove Linked Area Records check box.

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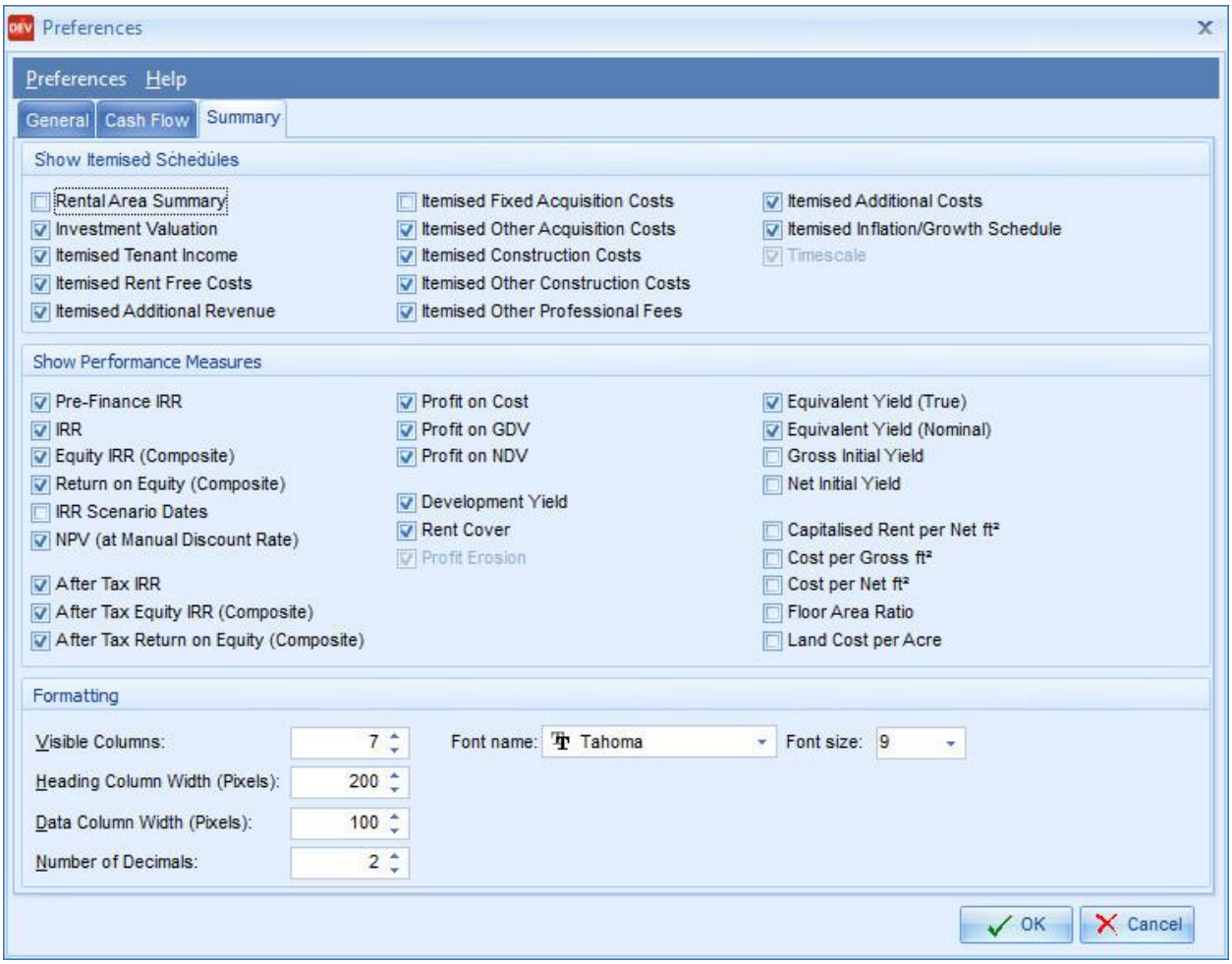
Summary



Show Itemized Schedules

Rental Area Summary

To include a summary of all rental areas at the beginning of the report, check the **Rental Area Summary** option. To remove the summary, uncheck the option. The advantage of not including the rental area summary is that the report will not contain as many columns; therefore, printing on a single page across.

Investment Valuation

Select the **Investment Valuation** option to show the full Investment valuation on the Summary page which displays a breakdown of each of the Sales and Capitalized Rent definitions including the number of units, area, rate and yield. To show a summary of sales and rents, clear the **Investment Valuation** option.

Itemized Tenant Income

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When tenants' income flow is activated in the cash flow, a breakdown by accommodation unit is displayed in the Summary screen when the **Itemized Tenant Income** option is selected. To display a single summary line only, clear this option.

Itemized Rent Free Costs

You can show a detailed list of the Rent Free costs by selecting the **Itemized Rent Free Costs** option. To show a summary line that shows only the total cost, clear the option.

Itemized Additional Revenue

You can show full schedule of additional revenue, including the heading and amount, by selecting the **Itemized Additional Revenues** option. To show a summary line that shows only the total additional revenue, clear the option.

Itemized Fixed Acquisition Costs

A full schedule of all fixed acquisition costs will be displayed in summary if this option is checked. To show a summary line of the total fixed acquisition costs only, clear the option.

Itemized Other Acquisition Costs

To show a full schedule of Other Acquisition Costs in Summary select the **Itemized Other Acquisition Costs** option. To show a summary line that shown only the total costs, clear the option.

Itemized Construction Costs

To show a breakdown of each of the Construction Cost definitions that includes the number of units, area and rate, select the **Itemized Construction Costs** option. To show a summary line instead, clear the option.

Itemized Other Construction Costs

You can show a full schedule of Other Construction Costs, including the heading and amount, by selecting the **Itemized Other Construction Costs** option. To show a summary line that shows only the total costs, clear the option.

Itemized Other Professional Fees

You can show a full list of all the other professional fees, including the heading, percentage and amount, by selecting this option. To show a summary line that displays only the total amount, clear the option.

Itemized Additional Costs

To show a full schedule of any additional costs defined, including the heading and amount, in summary select the **Itemized Additional Costs** option. To show a summary line that shows only the total costs, clear the option.

Itemized Inflation/Growth Schedule

The Inflation/Growth schedule can be included at the end of the Summary report by selecting the **Inflation/Growth Schedule** option. The schedule shows each item in the Area Schedules to which inflation or growth has been applied. Each line shows the area item heading, the un-grown capitalized rent, the amount of growth and the total capitalized rent (with growth) for the item.

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Time Scale

You can show a summary of the phase time scale detailing the length and date of each stage by selecting the **Time Scale** option. This time scale summary is displayed in the Finance section of the Summary. The time scale is only shown for single phase projects or, in a multi-phased scheme, when a single phase is viewed.

Show Performance Measures

Pre-Finance IRR

The Pre-Finance IRR is the IRR calculated for the project before the effect of any financing. You can enable or suppress the display of the Pre-Finance IRR on the Summary screen and printed report by checking or un-checking the option.

IRR

The IRR is the IRR calculated for the project after the effect of financing. You can enable or suppress the display of the IRR on the Summary screen and printed report by checking or un-checking the option.

Equity IRR (Composite)

The Equity IRR is calculated from an aggregated cash flow for all Equity funding sources. You can enable or suppress the display of the Equity IRR on the Summary screen and printed report by checking or un-checking the option.

Return on Equity (Composite)

The return on equity is calculated from an aggregated cash flow for all Equity funding sources. You can enable or suppress the display of the return on equity on the Summary screen and printed report by checking or un-checking the option.

IRR Scenario Dates

To display the start and end dates of the period over which the IRR is calculated, select the **IRR Dates** option. The default setting for the IRR calculation is from the start date to the exit date of the phase or project selected. To hide these dates from view, clear the **IRR Dates** option.

NPV (at Manual Discount Rate)

You can enable or suppress the display of the NPV on the Summary screen and printed report by checking or un-checking the option.

After Tax IRR

The after tax IRR is calculated from an aggregated cash flow for all funding sources after any tax has been deducted from profit distributions. You can enable or suppress the display of the After Tax IRR on the Summary screen and printed report by checking or un-checking the option.

After Tax Equity IRR (Composite)

The after tax equity IRR is calculated from an aggregated cash flow for all Equity funding sources after any tax has been deducted from profit distributions. You can enable or suppress the display of the After Tax Equity IRR on the Summary screen and printed report by checking or un-checking the option.

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After Tax Return on Equity (Composite)

The after tax return on equity is calculated from an aggregated cash flow for all equity funding sources after any tax has been deducted from profit distributions. You can enable or suppress the display of the after tax return on equity on the Summary screen and printed report by checking or un-checking the option.

Profit on Cost, Profit on GDV, Profit on NDV

There are three types of profit measure you can specify here. You can enable or suppress the display of the profit on cost, profit on GDV, or profit on NDV on the Summary screen and printed report by checking or un-checking the appropriate options.

Development Yield

You can enable or suppress the display of the development yield on the Summary screen and printed report by checking or un-checking the option.

Rent Cover

You can enable or suppress the display of the rent cover on the Summary screen and printed report by checking or un-checking the option.

Profit Erosion

When you are working in basic finance mode, you can enable or suppress the display of the profit erosion on the Summary screen and printed report by checking or un-checking the option.

Equivalent Yield (True), Equivalent Yield (Nominal)

You can enable or suppress the display of the equivalent yields on the Summary screen and printed report by checking or un-checking the option.

Gross Initial Yield

You can enable or suppress the display of the gross initial yield on the Summary screen and printed report by checking or un-checking the option.

Net Initial Yield

You can enable or suppress the display of the net initial yield and the net initial yield on the Summary screen and printed report by checking or un-checking the option.

Capitalized Rent per Net ft²

You can enable or suppress the display of the capitalized rent per Net ft² or Net m² on the Summary screen and printed report by checking or un-checking the option.

Cost per Gross ft²

You can enable or suppress the display of the cost per gross ft² or gross m² on the Summary screen and printed report by checking or un-checking the option.

Cost per Net ft²

You can enable or suppress the display of the on the Summary screen and printed report by checking or un-checking the option.

Floor Area Ratio

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You can enable or suppress the display of the on the Summary screen and printed report by checking or un-checking the option.

Land Cost per Square Foot
You can enable or suppress the display of the land cost per square Foot on the Summary screen and printed report by checking or un-checking the option.

Note: If the measurement units are changed to metric, the caption will read land cost per square meter.

Formatting Options

Visible Columns
The Summary is displayed on an invisible grid. You can set the number of columns in the grid by typing a number between five and nine into the Visible Columns box. The Summary template has eight columns at present; the extra one is for future expansion. You must set the number of visible columns to eight in order to display the full Investment Valuation in the Summary.

Heading Column Width (Pixels)
You can set the width of the column used to display the line headings by typing a number between fifty and three-hundred into the Heading Column Width (Pixels) box. You may need to adjust this setting after changing the font size or to suit the resolution of your monitor.

Data Column Width (Pixels)
You can set the width of the column used to display each item's values, totals and sub-totals by typing a number between forty and three-hundred into the Data Column Width (Pixels) box. You may need to adjust this setting after changing the font size or to suit the resolution of your monitor.

Number of Decimals
To increase or decrease the precision of figures on the Summary and printed reports, you can specify the number of decimal places using the spinner arrows.

Font for Summary
The font used to display the Summary on screen may be altered. Select the **Font for Summary** button to display the Font window. The font name and size can be changed, but not the other font properties.

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